DOCUMENT RESUME

ED 108 387 EA 007 312

TITLE	New Approaches to Secondary Education: Italian Problems and Prospects. Report on a Workshop (Frascati, Italy, May 4-8, 1970).
INSTITUTION	Organisation for Economic Cooperation and Development, Paris (France). Centre for Educational Research and Innovation.
REPORT NO	82.656; CERI-EI-I-71.01
PUB DATE	3 Nov 71
NOTE	102p.
AVAILABLE FROM	OECD Publications Center, Suite 1207, 1750 Pennsylvania Avenue, N.W., Washington, D.C. 20006 (Free)
EDRS PRICE	MF-$0.76 HC-$5.70 PLUS POSTAGE
DESCRIPTORS	*Change Strategies; Educational Change; *Educational Improvement; Educational Policy; Organizational Change; *School Statistics; *Secondary Education; Tables (Data); *Workshops
IDENTIFIERS	*Italy

ABSTRACT

This report summarizes an international workshop held in 1970 to consider new approaches to Italian secondary education. At the conference, educational experts from the United Kingdom, France, West Germany, the United States, Norway, Sweden, and Yugoslavia, as well as two members of the Centre for Educational Research and Innovation met with 23 Italian educators, at the request of the Italian Ministry of Education. The report contains a number of papers prepared by conference participants, a summary of the opening address delivered to the conference by the Italian minister of education, reports of the small working groups at the conference, and the ten conclusions and recommendations adopted by workshop participants. In addition, Appendix 1 presents a variety of educational statistics relevant to upper secondary schools in Italy. (JG)

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ED108387

ORGANISATION FOR ECONOMIC
CO-OPERATION AND DEVELOPMENT

Centre for Educational Research
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CERI/EI/I/71.01

Paris, 3rd November, 1971

Or. Engl.

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NEW APPROACHES TO SECONDARY EDUCATION:

ITALIAN PROBLEMS AND PROSPECTS

Report on a Workshop
held at Villa Falconieri, Frascati, Italy,
May 4th-8th, 1970.

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FOREWORD

Toward the end of 1969, the Italian Authorities requested the help of the Centre for Educational Research and Innovation to organise an international workshop on the theme "New Approaches to Secondary Education". Central to the project was the prospective reorganisation of Italian upper secondary education which had been commonly recognised as a very urgent need after unification of the lower level in 1962. It was felt - and I believe the workshop proceedings justified the feeling - that Italian school planners and educators could benefit from an exchange of international experience in the same area.

Accordingly, CERI called together a group of experts from the United Kingdom, France, West Germany, the United States, Norway, Sweden and Yugoslavia. These experts and two CERI Secretariat members met with 23 Italian educators from May 4th to 8th, 1970, as guests of the Italian Ministry of Education at the Centro Europeo dell' Educazione, Villa Falconieri, Frascati. The Director of this Centre, Prof. Giovanni Gozzer, had previously prepared a paper outlining the historical background to current problems which was sent to all participants together with other background materials. Also two distinguished educational experts, Stuart Maclure (United Kingdom) and Nils-Eric Svensson (Sweden), had travelled through Italy interviewing various Italian experts as preparation for a basic report written by the former as a working paper for the Workshop. During the Workshop, which was opened by a very constructive address given by the Italian Minister of Education, the theme of reorganisation was discussed in all its aspects: the rationale and objectives of such a plan; structures and strategies which could be created to meet the objectives; problems and styles of implementation.

At the end of the week, the participants adopted Ten Points of Conclusion calling for a radical departure from the past and for the progressively planned institutionalisation of a comprehensive, flexible, and democratic system of upper secondary education. This document was presented to the Italian Minister of Education who has already indicated in many ways the importance he attaches to it. The actual form reorganisation will take and the time needed for its implementation may be still uncertain. The Frascati conclusions however have already become the necessary frame of reference for both political actions and further discussions in the field. The final "Personal Comment" in this volume written by Stuart Maclure, general rapporteur of the conference, gives a challenging idea of the complexity and seriousness of the issues involved in the implementation of "new approaches" in the Italian educational scene.

It is hoped that this volume provides a fair summary of the intensive work carried on at Frascati. It is also hoped that it raises many of the important issues which face any nation seeking nothing less than radical reform.

The CERI Secretariat member responsible for planning and directing the Frascati Workshop was Mr. Per Dalin, who deserves much of the credit for its success.

Aldo Visalberghi

Member of CERI Governing Board
Chairman of the Frascati Workshop

SUMMARY OF THE OPENING ADDRESS DELIVERED BY THE ITALIAN MINISTER OF EDUCATION, Dr. RICCARDO MISASI

Stressing the importance of the conference's theme, Dr. Misasi said the conference "deserves today to get the maximum attention in Italian political circles, on account of its topicality, joined with the country's urgent need for thorough-going reforms in higher secondary education.

"This, together with the more general one of the educational system, is our top problem", he went on. "It is linked, indeed, with persistent social inequalities that a modern democracy should tend to eliminate.

"To a certain extent, the reform of the higher secondary school has had good guide-lines laid down for it. All future reform is now conditioned by the important ruling that recently liberalised access to university. This law allows practically all higher secondary school graduates - from whichever type of institution they come - to enrol at any university faculty.

"Of necessity, the new higher secondary school will have to fit in with this provision. And it is for this reason that we are thinking of a comprehensive school," Dr. Misasi said. "With it, we think we could take definite steps towards guaranteeing the right to study for all young people.

"In the public mind, there is the justified recognition that, under our arrangements for the higher secondary sector, there are schools of differing levels and differing prestige. If we set out to establish a single comprehensive secondary school, rich in internal options and able to allow students to make choices in study and training gradually, we would also have a way to eliminate this unjust discrimination.

"This is why I am thinking in terms of a school which awards an undifferentiated diploma of secondary studies as valid for entering a factory as a university.

"Obviously," Dr. Misasi went on, "we realise that the implementation of successful reforms on these lines will in practice only come about if innumerable obstacles are overcome. Even so, I feel that we need to have this trend clear in our minds.

"We also know that this reform assumes an almost completely new policy of re-distributing educational institutions; it may even assume the creation of educational districts and other structures.

"Furthermore, it raises the problem of who should provide facilities for specialised training should a school - however rich in options - take on itself the job of specialised vocational training; or should there be a call to other institutions, such as those of trade unions or industry, to collaborate in this task ? The problems are many.

"The new school could also require a progressive adjustment to current university reform.

"In any case, we believe that a comprehensive secondary school is the most appropriate solution. But we also feel that reforms must not be considered as giving final answers to the question. They should instead be the beginning of a process that can be later modified on the basis of the experience gained from carrying out the reform itself. In this sense we believe that the concept of experimentation should be widely introduced and applied.

"In any case," the Minister went on, "we are convinced that there is a real need for quick and decisive reform in the upper secondary school. Its present structure is a tangle; into it are twisted the problems created on the one hand by compulsory school, and on the other by the university. It is on the unravelling of that tangle that the future of the whole education structure in this country depends."

On the question of the school in European community, the Minister said that comparisons should be made as work went on between the hypothesis of reform and what was happening in other European schools.

"Politically speaking," he said, "we believe in Europe; we will firmly and continually strive towards the unification of the European countries. It is for this reason also that we deeply feel the need to give our country an educational structure that can fit into the perspective of European education.

"And it is because of this that we are looking at what you are doing with the deepest interest. We do not feel that this is the moment to call a referendum from which the course of reform could be worked out; but we do think it is above all the moment for listening to a symposium as rich and as full of stimulus as yours.

"For this reason we regard your discussion as a valuable occasion for receiving suggestions and indications to inspire us in our action."

NEW APPROACHES IN ITALIAN SECONDARY EDUCATION

by Stuart MACLURE
Editor,
The Times Educational Supplement

1. INTRODUCTION

This paper is based on three questions. First, what are the main models being put forward for the reorganisation of Italian Secondary education? Second, what are the main constraints on change in Italian education? Third, what kind of strategy for change - what combination of policies - would most effectively contribute to educational innovation in the Italian setting?

It is inevitable that in the process of trying to set this down in a short report of this kind that many matters will appear to be over-simplified. But to be of any use it must raise questions without pretending to be able to answer them, and by so doing, help to delineate some of the areas of discussion. One way of doing this is to record some of the impressions of a small group of interested foreign visitors who have been given the opportunity to spend some days in interviews with Italian experts inside and outside the Ministry of Public Instruction. Some of these impressions may well prove to be ill-founded, but they may yet provide a point of departure by spotlighting some of the issues.

Italy, like almost every other European country is faced with the need to reorganise secondary education in the face of social and economic change. As elsewhere the general direction of the change is clear: it is a change away from the early separation of children into different types of school, towards unified forms of secondary education in which the decisions which limit opportunity are delayed as long as possible. When consideration passes beyond the stage of generalisation about the direction of reform, this raises profound issues of social policy on the one hand, of pedagogy on the other. Different forms of education imply different views of society and quite properly reflect basic political theories and views of the individual and the State. And even given a measure of agreement about aims there is room for wide disagreement about the way these aims should be reflected in educational institutions and their curricula.

A major factor in the Italian situation is the lack of any strong political consensus about educational reform. Clear policies of educational reform demand strong political leadership which in turn depends on clarity concerning social goals. In present circumstances where governments are based on a coalition of political groups and interests, positive policies for educational reform are more likely to divide than to unite. And the long-term initiatives which they demand - which may well require adjustments in relationships between Church and State - can only be forthcoming given a broad community of view. Yet ultimately educational reform is a political responsibility; without leadership from those who hold political office in a democratic society, change in the systems and structures of education must be slow.

This has to be set down at the outset because of the character of the Italian education system which is highly centralised and therefore largely dependent on the central administration for any change of direction. A strong central direction as, for example, in Sweden, can be a powerful agent of change; based on firm and settled social policies and goals clearly laid down by democratic procedures, to which the whole education system can be orientated. In a country like England, on the other hand, with a decentralised system of educational administration, the lack of a forceful central direction can, to a certain extent be made good by local initiative and spontaneous innovation - out of which new nationally accepted goals can be developed. This, at any rate, is how the English like to rationalise their own activities. But a highly centralised system without the dynamic of a strong political consensus for educational reform could find it had the disadvantages of control by a central bureaucracy without the (possibly) saving grace of local innovation.

Present organisation

The Italian School System(1) provides for primary schools for children from 6 to 11, followed by a middle (or lower secondary) school from 11 to 14 which is the minimum legal school leaving age.

At 14, a pupil with a middle school leaving certificate may apply for entry to the upper secondary schools. These are divided into three main categories - general, technical and vocational, each of which is divided into sub-categories.

Till 1969, only certain categories of school could give qualification for university entry, and particular types of school only gave admittance to particular faculties. These limitations are set out below but new legislation at the end of 1969 has radically changed this, as will be indicated later.

A. General Schools

These comprise the classical lycée, the scientific lycée and the istituto magistrale.

(i) The classical lycée is the traditional grammar school or gymnasium "most deeply rooted in Italian tradition. Its chief aim is to train students for the university through general education with special emphasis on the humanities in the narrow sense". The lycée has two sections: the first is a two-year cycle from 14 to 16. The second covering a three-year cycle from 16 to 19 is the classical lycée proper. There is an examination at the end of the first cycle for admittance to the lycée proper, and at the end of the full five year course comes the maturità classica which qualifies the pupil for admission to any university faculty except the facoltà di magistero or higher teacher training college.

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(1) See also Secondary Education and its Historical Evolution (background paper) and Italy in the OECD series "Reviews of National Policies for Education", 1969.

Admission to the classical lycée requires a pass in a Latin test taken at the end of the middle school course, as well as the middle school certificate. There is, therefore, an elective introductory one year Latin course within the middle school for pupils in the last grade.

(ii) The scientific lycée provides general education at the same level as the classical lycée, but with more emphasis on scientific subjects. No Latin test is required for entry. At the end of the five year course the maturità scientifica is taken which till now has given entry to all university faculties except literature and philosophy.

(iii) The Istituto Magistrale is a school providing a four year course of secondary education which also serves as a training course for primary school teachers. The academic studies are supplemented by teaching practice in primary schools under the supervision of other teachers. At the end of the four year course there is an examination for the teacher's proficiency certificate.

As well as being a qualification for employment as a teacher (or rather for being considered for employment, for the output of these schools greatly exceeds the demand for primary teachers) this certificate is a qualification for entry to the facoltà di magistero, the university institutes where secondary school teachers, elementary school headmasters and other education specialists are trained. It has also been accepted for various university language courses. Under the new law it is intended that a supplementary course of one year should be offered on top of the istituto magistrale's four year course and that successful completion of this should give access to any university faculty.

B. Technical Schools (with certain very rare exceptions referred to later) offer courses lasting five years. They are divided into eight groups - agricultural, industrial, commercial and business studies, domestic science, tourism, nautical education, and surveying. There are further sub-groups: for example, the industrial category includes 31 separate technologies. The policy is that the first two years of this course should be common to all and their more specialised technological biases should be introduced in the second cycle. The agricultural institutes specialising in "vini-culture" run six year courses. Some industrial institutes have two year higher technological courses after first graduation.

The diplomas of the technical institutes have in the past given access only to university and polytechnic institutes with courses in fields related to those studied at the secondary level.

C. Vocational Schools - the istituto professionale - offer courses lasting two years for agricultural trades and three years for most others. Altogether, they provide for a total of 112 different specialised types of course within the general categories of agriculture, industry, craft trades, the merchant navy, women's occupations, and the hotel and catering industry.

Art education is provided in various specialised institutions such as the arts lycée which gives a four year course leading to the Fine Arts Academy or to professional studies in architecture on completion of the *maturità artistica*. The arts and crafts institutes with a three year diploma course also give entrance to the Fine Arts Academy. There are also a number of other specialist colleges of music, drama and dancing.

The impact of the new laws - 754, dated 27th October, 1969 and 910, dated 11th December, 1969 - has yet to be fully felt. They aim to open up opportunities in higher education to pupils who have not been to the *lycées*, the traditional preparatory institutions for higher education. This is to be achieved in two ways. The first step is to set up complementary courses at the vocational schools in order to extend the length of study to five years, adding more general and theoretical education after the first highly practical course of vocational training. On completion of the additional course of study, students will be eligible for a new *maturità professionale*.

The second step is contained in law 910 which is prefaced with a proviso that it is an interim measure "pending the enactment of a university reform bill". Under the new law all degree courses are to be open to all holders of diplomas issued by five year second degree schools - i.e. the lycées - and to all others who have completed specified complementary courses, at vocational schools and teacher training schools. No other special university entrance requirements can be applied nor must there be any kind of *numerus clausus*.

The following table shows the drop-out rate from the age of 11 onwards. The figures are provided by Centre Studi Investimenti Sociali (CENSIS).

Percentage in School (1967)

Age	Boys	Girls
10	99	97.7
11	94.5	88.1
12	90.2	78.4
13	80.9	66.6
14	61.6	48.2
15	49.0	37.1
16	39.0	28.0
17	31.6	21.0
18	25.4	15.6

To this may be added the figures for the way in which the first year enrolment of upper secondary school pupils is divided between the different types of institutions. The figures are given for 1965 and 1969 and show the rapid growth of the scientific lycée and the vocational school.

Type of School	1st Year Pupils		Percentages	
	1965	1969	1965	1969
Classical lycée	43,873	44,431	12	10
Scientific lycée	26,806	60,230	7.4	13.5
Scuole e istitute magistral	64,637	69,134	17.8	15.5
Technical school	162,562	171,181	44.6	38.5
Vocational school	66,380	100,285	18.2	22.5
Total	364,288	445,261	100	100

2. CRITICISMS AND SUGGESTED REFORMS

Criticism of the present system can be found in Chapter Three of the first section (contributed by the Italian Authorities) of the OECD report on the Italian education policies, already referred to.

There is some way to go yet, for instance, in achieving an effective middle school throughout the country, owing to the proportion of pupils dropping out between the ages of 12 and 14, and because of the number who have to repeat years. The figures appear to be rapidly improving. In 1960 only 61.6 per cent of 13 year old boys and 44.1 per cent of 13 year old girls were attending school. By 1967 the percentages had risen to 80.9 for boys and 66.6 for girls. But clearly the achievement of a universal middle school is a basic condition of a more equitable system of upper secondary schools. In 1967 only 61.1 per cent of the age group attained a middle school leaving certificate, the prior requirement of all forms of secondary schooling. Where the rate of repeating is high it may well mean that a number of pupils are not able to enter the upper secondary school - particularly the vocational school which can expect to receive some of the less able - till they are 15 or 16.

Already no doubt these statistics are out of date and the middle school position has continued to improve. A more radical critic might wish to ask questions about the place which the teaching of Latin holds in the middle school, in view of its importance to those seeking entrance to the classical lycée. In terms of curriculum, the classical lycées expect their new entrants to have made a start with the classical language. In practice, however, this makes Latin into an instrument of selection, and for this purpose, quite a blunt instrument. It is frequently suggested that it will take more time before the teachers within the middle school fully accept the implication of unification and resist the temptation to introduce what amount in practice to forms of premature differentiation.

The main criticism is directed at the degree of separateness which distinguishes the different forms of secondary education. It seems to be widely recognised that the first two years of the upper secondary school (14 to 16) needs to be reviewed and a common biennium of some kind established. The view put forward in the OECD report was that "in present-day Italy, at least for the time being", a thoroughgoing unification of the five years of secondary education was impracticable, but that "the distinction must be retained between the different basic orientations, particularly in the second three year cycle of the upper secondary system, while adopting homogeneous structures in the first two year cycle to make it possible for pupils to switch from one type of school to the other".

In this context, the *istituto magistrale* is the target for much hostile comment, and any programme for the reform of secondary education is certain to include some modification of the role of these teacher training schools. Already, it seems, they perform a more general function than just that of training primary school teachers: only a small proportion of their pupils enter the ranks of the teachers. They offer a secondary education of a less rigorous kind than that held out by the classical or scientific lycée, not requiring classical languages, and lasting for four years instead of five. In a more unified system it would seem, on the face of it, this general education function might be performed by a "modern" lycée course within some wider secondary school, holding out the prospect of easier movement sideways into and out of the classical and scientific sides.

As for the teacher training function, this too is criticised widely on the grounds that it provides an inadequate academic and pedagogic preparation for primary school teachers, and prevents the emergence of strong teacher training institutions concerned with primary education within the structure of higher education.

In defence of the *istituto magistrale* are powerful social institutions which control many of them - and through them seek to retain influence in the primary schools themselves. Two-thirds of these schools are private institutions, a majority of them run by the Church. No doubt in any reform scheme these institutions would seek to keep some kind of teacher training function at least in the second cycle. There is also said to be resistance to the idea of incorporation of this schooling within the lycée from some of the lycée teachers who see the *istituto magistrale* as a buttress to the higher prestige of the *lycée*.

The highly specialised and vocational character of the rapidly growing vocational or trade schools is another aspect of the Italian educational scene which makes a move towards unification difficult. The vocational schools aim to provide a technical training and preparation for industrial employment which can be immediately useful to a boy or girl who enters employment at 16 or 17 as a semi-skilled worker. There is a strong tradition of trade-training in the schools, and although some of the larger industrialists are said to have begun to doubt its efficiency as a form of skill training - and the expedience of initiating boys and girls at so early an age into forms of industrial training which commit them to particular jobs - the employers' organisations reflect the view of the majority of small employers who rely heavily on the vocational schools for a supply of pre-trained workers.

The development of advanced courses in the vocational schools in order to provide routes to intermediate supervisory level jobs and also to the university in the light of the latest legislation seems likely to lead to a re-appraisal of the whole of the vocational school programme.

The out and out comprehensive school enthusiast would incorporate the vocational school within a unified biennium with the minimum of options, seeking to retain a common core curriculum to 16.

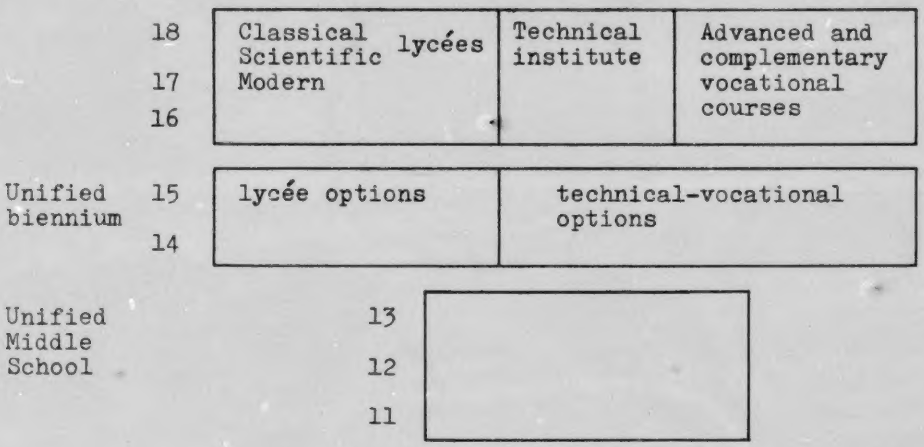
A more middle-of-the-road line would be to divide the biennium into two halves, one based on the lycees and the other on the technical and vocational schools, while coordinating the curriculum in both the sections. This would pre-suppose the postponement of specialised vocational instruction which would have to be provided by an intensive third year course.

The third line of thought is more revolutionary and implies a larger leap in the dark. This is based on the hypothesis that gifted students coming up through an intensive vocational course during the first biennium could find this a psychologically beneficial preparation for the theoretical studies at the top of the vocational school. This looks a bit like a rationalisation of the arrangements which are now being improvised under law 754, but it is suggested that they may be sound pedagogic reasons for experimenting along these lines. Many people might feel that whatever view is taken of this theoretical speculation, it would be unlikely that a meaningful five year programme could be divised without also revising the contents of the biennium. Even those who believed that the best way to approach the theory was through the practical application, would not want to divorce the two parts of the course entirely. But on the resolution of any debate between these two schools of thought depends whether or not the vocational school should or should not be incorporated in larger plans for the reform of secondary education from 14 plus, or whether the vocational school studies continue while the other streams are incorporated into a comprehensive secondary school.

One question which must arise in many people's minds is how appropriate an intensive two or three year course of vocational training is for this mid-teen age range, in view of the fact that demands for particular skills are changing fast and versatility and the capacity for re-training may, in future, come to be a greater asset than a narrow proficiency in a single trade. This, some would agree, could in any case be provided fairly quickly by intensive training at a later stage. But these considerations raise far-reaching social and industrial questions, the answers to which are unlikely to lie entirely within the educational sector. Given parental pressure for early employment and for "useful" education which can be assessed in terms of a financial return, the scope for reform may be limited in important respects.

Models

The discussion points, then, towards a unified biennium for the first two years of upper secondary school, and a model in diagramatic form, something like this.



This general purpose model would have to be modified in various ways to accommodate more or less radical views. What options should be allowed in this biennium would, for example, be a matter of keen dispute. At the one extreme there would be the wholehearted devotees of comprehensive education who would advocate the minimum differentiation (and would certainly condemn the Latin option in the middle school). At the other there would be those who could happily see the development of a tripartite organisation within the unified biennium which would permit a considerable amount of specialised vocational instruction for those choosing the vocational option. About the only thing which seems really certain is that in the course of time the pressure will build up behind the more comprehensive rather than the less comprehensive models.

From the educational point of view, perhaps the least controversial proposition would be the elimination of the istituto magistrale, but this, as has been indicated, only serves to indicate the wider social and political pressures which would have to be taken into account.

The vocational option remains the greatest cause of difficulty in devising a common two year core. A large part of the curriculum for the vocational and technical option could be dove-tailed - though there is also criticism now in certain quarters that the technical curriculum should be more, not less, scientific - but so long as it is felt that these boys and girls should receive specialised instruction in a craft or trade and leave school ready to earn their living as semi-skilled workers, it is hard to see how this can be squared with the larger aim of postponing irrevocable life choices and keeping educational doors open.

A factor in the discussion is the possibility that at some point within the next 10 years the school leaving age might be raised to 16. This would clinch the case for the unified biennium, but not dispose of the argument about early vocational specialisation, which is a sociological as well as an educating argument. To reduce the vocational specialisation without raising the school leaving age would be to remove one of the incentives to stay at school voluntarily. It would also suggest the possibility that private educational institutions might step in to offer this kind of trade training and thereby undermine the unified biennium.

The larger social issues raised by the vocational option can only be dealt with by social and industrial policies as a whole. Outside the narrowly educational field, they might, for example, suggest the need for larger social payments to encourage parents in the lower income groups to keep their children at school. Equally, they might require new policies for industrial training and retraining, and new attitudes to the induction of young workers into employment.

Among the many variations on the model which have been put forward with more or less enthusiasm by various reformers, is a more radical proposal which depends on the reduction of the age of entry into primary schools from 6 to 5, the completion of primary education by the age of 10, and the advancement of the middle school starting age from 11 to 10. This would then enable the year from 13 to 14 to be an orientation period, followed by four years of upper secondary education from 14 to 18, with separate streams and option for the humanistic, scientific, technical and vocational traditions.

It is claimed on behalf of this approach that it would enable pupils to complete secondary school by the age of 18 and thus be economical and allow pupils to start earning earlier. It would also allow a sensible orientation process without preventing a period of specialised vocational training by the age of 16 for those who wanted it.

On the other hand, it would not satisfy those whose object is to postpone choices of this kind, and institutionally it causes an upheaval for every kind of school.

One question which arises from many of the proposals concerns the distinction between a unification of the school system and a unification of the curriculum. Among the variations which could be devised are some which would introduce a more unified system of schools, while allowing each school to be organised in several different "sides". Others would retain the differences between types of school, while aiming at the co-ordination of the curriculum offered by these separate types of school. One of the differences of principle, therefore, will be between those whose prime aim is social - to avoid the division of the adolescent community into separate schools, each with its own position in a hierarchy of schools, and those who believe that what is important is to retain a common core of curriculum in all schools in order to facilitate transfer and keep opportunities open.

Experience elsewhere may suggest that these two principles are two sides of the same coin - that a hierarchic organisation of schools in itself makes interchange difficult, even when the common core of the curriculum makes this theoretically possible; and that as social institutions, schools impose on the pupils who attend them, scales of values and levels of aspiration which belong to the institutions themselves, thus serving to limit individual choice and establish recognised social roles.

If this applies in the Italian context, it must - like the insistence on early trade-training for those planning to enter employment at 16 plus - reinforce the divisions in the system. And in a system where half the children have left school by 15 plus, the pressure for early vocational studies will come from parents who, by definition, are ambitious for their children and willing to make sacrifices to fit them into an acceptable social and vocational slot at an early age.

Constraints on Change

The visitor who asks about the obstacles to adaptation in Italian education will be given answers which fall into several groups - perhaps these could be grouped under the headings of "societal", "institutional" and "instructional" used by John I. Goodlad in his attempt to build a framework for the study of curriculum theory. For the purpose of this paper, which is mainly concerned to set down hear-say comment as the basis of further discussion, no very neat or tidy arrangement is possible, because many kinds of constraint seem to apply at several levels.

At the societal level there is the general political situation already referred to - the difficulty of obtaining the mandate for a clear-cut policy of educational reform in the context of a series of coalition governments.

Also at the societal level would come those constraints which are exercised by the dominant tradition of the present educational tradition, represented at the institutional level by the lycée. It is suggested that this strongly humanistic and historical tradition rooted and grounded in the ancient languages and ancient history - the legacy of the traditional philosophy of secondary education - must exercise a powerful influence on those who now hold responsibility at every level; human nature being what it is, they are likely to feel that their own security is involved in the validity of the educational criteria used in this educational tradition to distinguish between varying talents.

It can be argued generally that the effect of early separation into separate and parallel institution, each committed to different social goals (in terms of employment and social class) as well as different educational goals, puts a premium on educational opportunity as the prime agent of social mobility. The paradox of making education the key to social mobility is that this also makes the educational system the instrument by which all social roles are defined, i.e. an agent of social immobility as well. On this analysis, the more people feel their own social position is derived from divisions within the educational system, the more their attitude to change is likely to be tempered by a fear that change may threaten their own particular niche in society.

At the institutional level, the importance of the teachers themselves as allies or opponents of change is clearly of paramount importance. Here again the dominant traditional humanistic tradition is highly relevant. The teachers' unions are many and mainly concerned with the immediate needs of their members; they are not widely regarded as an important pressure group for educational reform.

Much attention has been directed to the way in which secondary school teachers are recruited and to the lack of any requirement that their training should include any pedagogic studies. This inevitably means that the teacher whose own educational attitudes are formed in a traditional *lycée* and university returns to teach and himself reinforce the tradition. As the Italian contribution to the OECD report, already referred to, pointed out, this was less obvious when the tradition of secondary education was more narrowly restricted and more secure, but it is of manifest significance when social changes are widening the entry to secondary education and bringing in "a vast quantity of youngsters who were traditionally excluded from secondary education".

Plans of various kinds are being discussed, including interim plans, pending a larger reform. These could include the reform of primary school teachers' training in the event of the elimination of the *istituto magistrale*, and the provision of post-graduate professional courses in education - sociology, psychology and so on - in education departments in the universities, as a prior condition of the *abilitazione* qualifying a teacher for employment in a secondary school. Tied up with all this is the question of the "concourse" method of filling established posts in the teaching service.

At the *instructional* level, the traditional curriculum and traditional method of initiating graduates into teaching tend to encourage formal methods of teaching. They put the accent on the transmission of a given culture rather than a critical attitude towards received information. This too has implications for the innovation process, if innovation is to involve transferring more of the responsibility of learning from the teacher to the pupil and a consequent change in the nature of the teacher's authority. Implicit in any serious move to provide mass secondary education is the attempt to match the education to the pupil rather than blame the pupil for failing to correspond to the kind of education which is on offer.

It would follow from this that teachers who are wedded to a clearly defined, traditional, humanistic curriculum and formal, authoritarian methods of teaching will find it difficult to lead the process of innovation, and are more likely to resist it because it must cause an upheaval which is disagreeable to them.

Also at the *instructional* level, there is the question of the central control of the curriculum by the Ministry of Public Instruction and how far this encourages or discourages initiative among the teachers, and hence prepares for participation in innovation.

The Ministry, being a government department headed by a leading politician, can only be as progressive as its current political leadership will permit. The Ministry's officers are at pains to point out the restriction on their own initiative which they see mainly as being limited to advising on the most effective method of carrying out the policies adopted by their ministers. (No doubt this is clumsily expressed, but is the gist of views put forward at a meeting with officers of the Ministry).

How far does this modest attitude affect the Ministry in its more directly pedagogic responsibilities for the content of the curriculum? Government departments are usually the targets of fairly indiscriminate criticism. But it would not be surprising if, in the absence of a positive policy of reform and innovation from the top, the bureaucratic machine adopted an attitude of hostile neutrality towards curriculum innovation - not out of any spirit of malice but simply because it is in the nature of bureaucracy - given the opportunity - to do again next year what was done last year.

Strategy of change

One of the aspects of the Italian secondary school situation which is likely to concern an international workshop is what kind of strategy could be worked out, given a desire to change the system in particular ways. If certain goals can be established, what co-ordinated programme of action could be devised to achieve the stated goals? To achieve certain effects, what are the right levers to pull?

Strategies of innovation are of more than national interest. Throughout the OECD countries curriculum reform and secondary re-organisation have been the subject of obsessive interest. How far are these ideas interchangeable across national frontiers?

1. Parliamentary

In the Italian setting, it seems agreed that the starting point for another instalment in the reform of secondary education is legislative - that however much could be done by administrative action by a determined Minister, the controversial importance of the kind of changes which are needed would be so great that no Minister could act without explicit Parliamentary support; without legislation no major, co-ordinated strategy of change is likely. This raises a number of questions to which no answers can be offered. Not, of course, that legislation is in itself a guarantee of co-ordinated strategy of change. The latest legislative interventions - laws 754 and 910 - are examples of how the law may be changed in a way which must have important consequences, without introducing any general plan for reform at the same time. The same might apply to reforms of the maturità and other aspects of the piecemeal reform of higher education.

How to use these piecemeal reforms to promote a general programme of reform is clearly something which must call for close study. What will be the result of an influx of potential university students whose school preparation has been quite different from the students who till now have entered the universities? (Other more radical proposals would open up university entry to students over 25 under still more liberal conditions). Will the result simply be a larger drop-out at the end of the first year with the attendant discontent this will cause?

How far will the prestige of the vocational schools have been altered by the new law which theoretically opens up an avenue to higher education for every type of school? Only the most optimistic can believe this is likely to make a great deal of difference to the hierarchy of institutions so long as the hierarchy of institutions correlates with the social class of the pupils who attend them.

What part will student unrest, both at the secondary school and at the university level, play in inducing the political parties to support educational reform (or in making educational reform unpopular)?

Progressive educators tend to assume that student unrest arises from faults in the education system (and outside it) which their own policies would eliminate. How far are the things which the students protest about, those which educational reformers would do something about? On one view, the discontent among students is evidence that "the educational system has ceased to serve the needs of a changed society and in so far as it is elitist in conception, is representative of decadent forces in society struggling to defend their own interests". In idealogical terms, Marxists and radical Catholics may find themselves at one in a critique of the educational system as a creature of business and capital. On another view, the anarchism of the student left expresses a nihilism which has little positive to say about the shape that educational reform should take. On either view, there is evidence that the effect of student unrest is to speed up the pace of educational change and persuade some to support reform out of expediency who are unconvinced of the principles on which the reforms are based.

Assuming there is to be a legislative initiative, what part will, or should, the Ministry of Public Instruction play in this, and what part will be played by special commission set up by the political parties?

The self-deprecating attitude which the Ministry cultivates is understandable in the circumstances but hardly consistent with the emergence of what may be called a "departmental point of view" which would be necessary to sustain a continuing plan for educational reform. (One thing is clear: educational reform has to be long-term or it is nothing). No doubt one aspect of a coherent strategy of reform would be to review the internal plan of the Ministry and to consider how the departmental organisation could best be arranged to favour the achievement of a unified biennium. For example, if the departmental structure at present corresponds to the divisions within the secondary system it might be reasonable to question whether this is conducive to the reduction of barriers between the different types of schooling.

Plans have been announced for the establishment within the Ministry of an "Institute of Educational Planning" which could become an important instrument in the direction of educational reform provided it is staffed by experts of sufficient calibre and has access to the Minister himself and his chief advisers. Alternatively, it could amount to little more than a re-arrangement of the present organisation for statistical information and planning.

Ideally, this might lead to the establishment of clearly defined goals for the educational reform - a kind of credo of the kind which in, say Sweden, provides a criterion by which all educational policies can be judged. In some other countries, such as England, the overall Education Act implies certain goals, but these are seldom spelt out, and the achievement of some sort of consensus takes place tacitly, rather than explicitly. Sometimes it is easier to do good by stealth than openly. Where politics are uncertain and governments come and go, clearly defined long-term objectives may be impossible to set out.

2. Supporting Policies

What kind of supporting policies will be required to carry through a further instalment in the reform of secondary education - and to prepare for it - supposing that the political and parliamentary leadership can be forthcoming?

(i) Teachers

As has already been indicated, a reform of teacher training is generally regarded as overdue and this would certainly form an essential element in any strategy. It would be unrealistic to look for short-term results. But the establishment of university education departments (in one form or another) for the pedagogic training of secondary school teachers, and eventually perhaps, able to offer education courses at the undergraduate level as well, would be a way of changing basic attitudes. The importance would not, of course, only lie in the studies which the future teachers would pursue but also in the establishment within the universities of powerful centres of study and research at a higher level, and the encouragement which this would give to the social scientists to direct their attention to educational questions. In this context, the Government's intention to establish a university based National Institute of Educational Research is relevant in long-term.

The establishment of professional colleges of education attached to universities where primary school teachers would be trained would also be an important development which would, in the course of time, begin to affect the schools, as methods and attitudes tend to move upwards through the system.

The natural and essential complement to the reform of initial training would logically be the expansion of in-service training and a determined effort to persuade the body of practising teachers to accept the philosophy behind the reform.

Without the acceptance of the teachers - more or less wholehearted - the changes in organisation will fail to achieve the intended result.

Given the widespread belief among liberal educationists that the teachers themselves represent a conservative force and one of the constraints on change, the involvement and implication of the teachers in the practical and theoretical preparation for reform and in its execution, is clearly difficult, but likely to be an essential part of the innovation technique.

(ii) Curriculum development

To give meaning and reality to a change of organisation, a major programme of curriculum development would seem logically to be required. Here again, the benefits of implicating the teachers and through the processes of testing and validating new materials, involving as many schools as possible, would seem to be obvious. This raises questions about existing curriculum centres (including that at the Villa Falconieri) and the part which they should play in the next stage of educational reform, including whether or not the continued separation of centres for particular kinds of secondary education would make sense, given a will to move towards unification.

Curriculum development in highly centralised systems demands a strong and positive lead from the centre, but it also requires the opportunity for local experiment and development.

A number of experimental schemes already exist and doubtless more would have to follow, including the institution of experimental schools in which the unified biennium would be applied more or less rigorously. These would require careful monitoring, but it might well be their object would not be to test the intrinsic validity of a more unified biennium so much as to study the practical problems to which it gave rise. Some would agree that this kind of experimental development would require a measure of local initiative and decentralisation with more decision-making at regional or provincial levels and the emergence of local development teams able to keep in close touch with progress at the ground level.

Clearly these questions go deep into administrative policy and far beyond the immediate problem of curriculum reform, but however they are answered the need to foster initiative at the local level will remain.

A fully articulated strategy might include the use of many different innovative techniques(1) including:

- the *pilot project*, in which a limited number of pupils and teachers experiment with new materials or methods or both;
- the *cadre approach*, in which special teachers - heads, inspectors, subject specialists - are released from their normal duties to help to introduce a new method or new materials as "agents of change";
- the *experimental sub-system*, where new methods or models are introduced in a limited area, large enough to be influential, yet small enough to be manageable;
- the *re-arranged setting*, in which by the introduction of a change in the physical environment - say by a new school design or the provision of language laboratories - new methods of teaching and learning are encouraged;
- *methods - materials - systems*, where new materials demanding their own methods and geared to their own objectives, influence the way teachers and pupils go about their work;
- experimental developments arising from close *co-operation between schools and universities*.

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(1) See Edward J. Mead's contribution to the Third International Curriculum Conference, Oxford, 1967: *Curriculum Innovation in Practice*, London, H.M.S.O.

3. Transfer between Institutions

A third line of strategy which suggests itself, particularly if more ambitious plans are not adopted, would be directed at facilitating movement within the educational system. The attempt to open up a path to the university via the vocational school is intended to do this in a particularly dramatic form. No doubt there are other ways in which bridges could be built between the separate secondary school courses to encourage a greater two-way traffic by reducing to the minimum the complementary studies which are demanded for transfer. This might also suggest a need for new ways of picking up those who drop out early, possibly by reducing the amount of part time study required to re-enter the main stream of education, or by the development of other forms of technical education, linked to industrial needs, to provide alternative routes to professional qualifications.

CONCLUSION

To sum up, the reform of Italian Secondary Education raises complex political and pedagogic questions which cannot be resolved by either politics or pedagogy alone. The direction of future educational reform seems fairly clear: the next step in terms of organisation is likely to be towards some kind of unitary, polyvalent or comprehensive system, beginning with a unification of the first biennium of the upper secondary schools, with options corresponding to some of the present divisions within the system.

There seems to be agreement that a change of organisation also implies changes in the curriculum and in teaching philosophy and method. This in turn would suggest a need for a positive attitude to innovation as a whole and a strategy for promoting it.

A consideration of the constraints on change in Italian education raises questions about the role of the central administration, and about the teachers who do not now seem to be regarded as a source of ideas or active pressure for educational reform. Proposals for the reform of teacher education have an obvious bearing on this, on the part which universities should play in the promotion of the study of education, and on the complementary programme of in-service training which would have to accompany the introduction of initial professional training for graduate teachers.

Finally, in an ideal world, the strategy of change would have to include a combination of policies, some of which have been touched upon, political, administrative, pedagogic, calculated to alter attitudes and long established practice and re-orientate the whole of the secondary education system in the new direction. To achieve this demands clear objectives and single-minded policies: luxuries which few countries in Western Europe can enjoy. But in the absence of these pre-requisites of perfect planning some kind of *ad hoc* framework becomes all the more necessary, as scaffolding around which the eventual edifice can rise.

A BRIEF HISTORY OF ITALIAN EDUCATIONAL REFORM

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A. SECONDARY EDUCATION AND ITS HISTORICAL EVOLUTION

The starting point of Italy's structural system was given by the Casati Law of 1859, promulgated before the Unification of Italy (1861), for the provinces of the Kingdom of Piedmont-Sardinia and of Lombardy. The norms and regulations of this Law were successively extended to the other Italian provinces.

With regard to secondary education, which is the subject of the present historical survey, the Casati Law introduced the following structures:

(a) a "*liceo ginnasio*" (classical secondary school), students from 10 to 18 years of age, sub-divided into a 5 year gymnasium and a 3 year lyceum;

(b) a three-year *technical school*, followed by a three year "*istituto tecnico*", which was later extended to four years;

(c) a "*scuola normale*" (teacher training school) for the training of elementary school teachers.

The *scuola normale* had no lower course and accepted students only if they were aged sixteen or above.

As for geographical distribution, the Casati Law established that there should be a gymnasium in the chief town of every district; a lyceum and a technical school in the chief town of every province; and a technical institute (sub-divided into several specialised branches) in the major industrial and commercial centres. Thirty scuole normali were opened.

From the time of the Casati Law until 1923, the year of the reform that took its name from Giovanni Gentile, secondary education remained more or less unchanged. However, the Orlando Law of 1904 raised the age of admission to eleven years of age, when the length of primary schooling passed from 4 to 5 years.

The *classical lyceum's* structure remained unaltered, although there were frequent and notable changes in its internal regulations. For instance, an optional system between Greek and mathematics was adopted from 1904 to 1911. In 1911, Minister Credaro created a series of experimental schools called "sections" of modern gymnasium and lyceum. The *technical institutes*, which had become quadrennial, were consolidated into three fundamental types or sections (physics and mathematics, surveying, commerce and administration). Meanwhile the specialised sections (for industry, for agriculture, for naval activities) depended, with special regulations, on their respective Ministries; they were placed under the Ministry of Education's control only in 1930.

The *technical schools*, which served as preparation for minor occupations in industry, agriculture, and commerce, flourished rather rapidly; they also served as lower or preparatory courses for the *scuola normale* (teacher training school), and, of course, for the *technical institutes*.

The *scuola normale* underwent various modifications in its organisation. It was in particular the object of innovative suggestions made by famous educators of the time such as Aristide Gabelli. A definitive re-organisation took place in 1896, when the title of primary school master became universal - previously the diploma had been divided into two grades, lower and higher. The Law of 1896 also created the institution of the *scuola complementare* (3 years, after primary school) which became the inferior or preparatory course for the female teacher training schools.

During the second half of the nineteenth century there was a constant and uninterrupted elaboration of proposals and reforms for the secondary schools. Among them were such interesting projects as the one presented by Terenzio Mamiani (1861), who supported even then the idea of a unified middle school; by Carlo Matteucci (1863), author of a "project on secondary education"; by Michele Amari, who in 1864 formed a special commission for the study of a new discipline of secondary schools. Also in 1864 the philosopher G.M. Bertini presented a well-known study in which he too supported the idea of unified lower grades in the gymnasium and in the technical systems. In 1866 Domenico Berti again proposed the idea of unifying the two types, but basing it exclusively on classical culture.

It is useless to enumerate all the Ministers who defended innovations or modifications of secondary education.

However, the constitution of the so-called *Martini Parliamentary Commission*, in 1888, can be considered as an important stage. In 1893 the Commission presented an extensive report, the most notable element of which was the proposed abolition of Latin in an unified lower school.

The year 1905 saw the birth of a *Royal Commission for the Arrangement of Secondary Studies*, consisting of the most famous representatives of culture and pedagogy; for the first time in our educational history the Commission worked with "questionnaires" which had been sent to the various representatives of scientific, cultural and educational activities.

For the Royal Commission too the crucial issue was the unification of the lower middle school, which should have been followed by separate schools for classical or general education, for technical education and for teacher training. But the findings of the Commission led to few practical results and only in 1911 did they lead to the foundation of a few sections of modern lyceum, which were, however, very quickly suppressed.

Yet the recurrent idea of unity in the lower school must not be misunderstood: it was always conceived of as unity of the existing schools, attended by only a tiny fraction of the population (not more than 10 per cent until 1915), and not as compulsory schooling permitting all citizens to be educated until 14-15 years of age.

The first major innovations, after the Casati Law, are to be found in the transformations promoted by G. Gentile. In the Gentile Reform the classical lyceum maintained its traditional structure; a *scientific lyceum* (4 years, 15-19 years) was brought into being; there was no lower course - the students were admitted after the lower course of the technical institute. Technical school and technical institutes were merged into a unique 8 year structure (4 years of lower course and 4 years of higher course); the mathematics and physics section became the scientific lyceum; the two other sections (administration and surveying) remained unchanged. The *istituto magistrale* (teacher training school) took the place of the old *scuola normale*, and consisted of a 7 year course (4 years of lower course and 3 years of higher course). The *scuola complementare*, created in 1896, practically took the place of the old *scuola tecnica* (technical school). A *girls' lyceum* was founded but it only lasted very few years.

This is the structure of secondary education. The Gentile Reform also gave new didactical content to the school, a fundamentally historical-critical approach, an outlook radically oriented in the sense of idealistic philosophy. With the introduction of the *State school leaving examination* (equal for everybody) a new type of relationship between State schools and private-confessional schools came into effect. (Previously the students of private schools had to pass their final examination in a public school).

Between 1923 and 1945 the most relevant innovations in the secondary sector were the following: transformation of the triennial (11-14 years) *scuole complementari* into *scuole secondarie di avviamento al lavoro* (lower secondary preparatory schools) sub-divided into the following branches: agriculture, commerce, industry, domestic economy, naval. The industrial, agrarian, naval and commercial schools that did not depend on the Ministry of Education were absorbed by the school system (the 1931 Law defined the precise structure of the Technical Institutes). Finally, the Schools of Art (scuole d'arte, istituti d'arte, licei artistici) begin to appear as a separate and distinct branch of the secondary educational system. University entrance is, of course, limited in the Gentile Reform. The classical lyceum gives free access to all faculties. For students leaving the scientific lyceum, law and humanities are out of reach. From the technical institutes, some faculties are accessible (rarely those corresponding to the relevant specialisation) and always with notable restrictions.

The authoritarian government of 1939 enacted the School Charter with an annexed plan of reforms. The only part of this programme that was carried out, however, concerned the introduction of the so-called *unified middle school* (1940). In fact, this new institution only unified the lower courses (3 years) of the gymnasium, of the technical institutes and of the teacher training schools. The preparatory schools (avviamento) and the post-primary courses were not included. The unified middle school was gradually introduced, between 1940 and 1943, in extremely difficult years. Successively, "liaison-classes" had to be created in the scientifical lyceums and in the technical and training institutes, so as to substitute the fourth class of the old lower courses.

After 1945, planning for the restructuring of secondary education was resumed zealously enough. First of all, some urgent measures to purge the programmes from fascist influences were undertaken. In teacher training schools psychology and direct training were reintroduced (they had been eliminated under the Gentile administration). And from all sides came agreement that extensive reforms were necessary. A first official project was elaborated in 1951 by the then Minister Mr. Gonella. A tripartite middle school was to be introduced (humanistic school, technical school, post-elementary school) leading to the traditional quinquennial courses. Also in this period, the problem of "middle school for all" was tackled for the first time: not a simple unification of the existing secondary courses, but an unified extension of primary compulsory education, which until that time was in fact compulsory only to 11 years of age. Compulsory schooling until 14 years of age existed, but only on paper and in those situations where preparatory schools (avviamento) existed ensuring that all boys and girls could benefit from this unique institution until their fourteenth birthday.

After a long and intense debate, lasting virtually from 1945 to 1960, the introduction of the new unified middle school, compulsory for all, was decided (Law of 31st December, 1962, No.1859). This is the school that we have today. On the other hand, the debate on the structures of higher secondary education came to a halt. Furthermore, between 1950-1960 another branch of education - the vocational schools - had grown to a considerable importance. They were biennial or more oftenly triennial institutes, with admittance at 14 years of age, and the task of giving qualifications for executive work (qualified workers).

In 1962 an Enquiry Commission (composed of Members of Parliament and experts) was created to propose new educational structures. These were the proposals of the Commission for secondary schools:

(a) a lyceum consisting of the traditional classical type and in a modern section, sub-divided into science, social studies and, as a part of the Commission insisted, teacher training;

(b) technical schools, with a common two year period and a differential three year period;

(c) for the arts sector, a concentration of the existing but extremely divercified institutions;

(d) vocational training, in the Commission's proposals, was isolated from the rest of secondary education, and formed as a separate system albeit with some connections with the technical schools.

After the conclusion of the Enquiry Commission's works, the Minister of Education Mr. Gui elaborated a series of projects on the re-organisation of secondary education. However, these projects never reached

Parliament. The hypothesis of modification is included in the document "Directive Lines of the Development Plan" presented on 30th September, 1964, which is notably different from the proposals of the Commission.

The "Directive Lines" give the following suggestions: short-term vocational training, in the old vocational training schools; technical education, for which the proposals of the Enquiry Commission are accepted (a common two year period and different three year periods of specialisation - commercial, industrial, naval, agrarian, domestic); the lyceums, of five different sorts: classical, scientific, linguistic, teacher training, artistic. The first two year period of all lyceums should have "substantially similar study programmes". In addition to these schools, a teacher training school for infant school mistresses and artistic schools for arts and music were to remain as well. These proposals brought no effective results although they did influence the successive debate on the reform of secondary education.

Towards the end of the legislature (1968) a project of reform was presented in Parliament (the Donati Project).The modification of the structure of two year periods was proposed, bringing to 16 the age of compulsory schooling, and introducing, practically, biennial "unified" schools in the respective technical, classical and teacher training branches. This project too was not carried out. The end of the 1968 legislature and the beginning of the new legislature rendered the re-organisation of secondary education still more urgent, but no proposals permitting even the possibility of consensus were advanced. The only relevant fact is an agreement between the parties forming Mr. Rumor's centre-left government in November 1968 in which the hypotheses for renovation of secondary education repeated those included in the "Directive Lines".

Today we have reached the situation where it has to be decided whether the projects elaborated in 1967-68 in three different plans (vocational education, technical education, lyceums) can be redrawn and simply brought up to date or if a radical renovation is necessary in our secondary education.

B. INNOVATION AND EXPERIMENTATION

The situation has been significantly modified by two very recent legal dispositions that came into effect in the very first months of the current year: the "Law on experimentation in Vocational schools" (No.754, dated 27th of October 1969), and the Law providing "Urgent dispositions for the Universities" (No.910, dated 11th of December 1969).

The first law introduces, in fact, a profoundly new situation: on the one hand it consents to the creation of 50 "experimental" courses within the limits of the actual schools (lasting two years), in which "the cultural component of the professional biennial is accentuated". On the other hand, the law consents to the institution of 350 "special courses", lasting one, two or three years, apt to consent to "a cultural and applicative secondary level formation", equal to that of the technical schools. Therefore, where the courses last three years, we have a true and proper quinquennial course, at the end of which the students can pass the "professional maturity" examination, equivalent to all other school leaving examinations; the title obtained corresponds to a qualification similar to the one delivered in technical schools and also gives admission to all University faculties in conformity with the recent No.910 law, mentioned above. In other words, we now have a new "experimental" vocational school, which, instead of lasting two or three years, now lasts five years, like the other secondary schools (14-19), and admits graduates to the University.

The problems connected with this innovation are relevant. The conception of a vocational sector or approach, separate and autonomous from the technical sector, intended to equip young people with simple working and executive qualifications and without further outlets (except integrative exams to pass into the technical system) is now definitively surpassed. The vocational school, in fact, becomes a "qualification course for intermediary technical professions", and at the same time a general pre-university secondary course, and for this reason an alternative problem will soon have to be resolved: either, reunification of the technical and vocational sectors, or, transformation, albeit on special basis, of the "experimental" vocational schools which have chosen a five year structure, into technical schools.

The second Law (No.910) although it concerns the University, contains a very important article which has crucial consequences for all secondary education. The article prescribes: "Pending the enactment of the University Reform Bill, all degree courses are open to:
(a) holders of diplomas issued by five years, second degree secondary schools, including linguist lyceums recognised by law, as well as those who have completed the complementary courses specified by the law authorising their experimentation in vocational training schools;
(b) holders of diplomas issued by teacher training schools and art schools who have successfully completed a one-year complementary course to be organised in every province by the Provincial Board of Education, under the University's didactic and scientific responsibility, on the basis of the instructions which shall be issued by the Ministry of Education."

With this decree, known as the "liberalisation of University entrance" Law, all the five-year secondary schools following compulsory school (6-14 years) give possibility of access to all University faculties with no numerus clausus limitations and no entrance examination.

With regard to four-year schools (artistic lyceum and teacher training schools), the circular No.3350, dated 29/12/1969, has already introduced complementary courses to be held in 32 universities, for a number of teacher training schools determined by the Provincial Board of Education; similar decisions have been taken for Art schools.

Vocational schools too now admit to the Universities: the above mentioned No.754 Law, by introducing, albeit experimentally, a three-year complementary course, held after the first two-year course, has brought the complete course to five years, thus opening it to the University. For the arts and crafts schools (consisting of a three-year course after middle school) an appropriate Bill (No.2076) has been presented to the Chamber of Deputies; this Law should provide the creation of an experimental course similar to that of vocational schools, and likewise admitting to University entry.

It is now evident that practically no secondary school today constitutionally excludes the possibility of reaching University; and furthermore, admittance to all faculties is permitted, independently from the secondary school attended.

Opinions and points of view on Law No.910 have, of course, been completely opposite: to some it seemed a bold liberal, egalitarian and democratic measure; to others it has been seen as a demagogic measure, apt to disrupt the whole secondary and universitary education system. Substantially, it is stigmatized because it permits indiscriminate access to University, without any control or guidance; and, for instance, a student who has never done any Latin or Greek could very well attend a degree course of classical letters; on the other hand, it is answered, the secondary system is not necessarily the only channel fit to consent or evaluate modes and types of structure. It will then be in the University itself that the student will have to give proof of his preparation or his lack of preparation in the subjects he has decided to study.

But then again it is said that if the University has to have the function of "controlling", which up until yesterday was the specific role of the secondary school, this is such a heavy burden that the academical institutions will be thrown completely head over tails and will not be able to cope with the non-motivated rise in the number of students.

The debate could, of course, go on for ever. It is, however, necessary to say that, in the present conditions, the consequences of the No.910 Law are not at all clear. There is no way of saying whether its effects will be positive or negative: everything depends on the ways in which the "liberalised demand" will grow, on the reaction of the academic institutions, and above all on the strategic direction capacities of the administration.

For all we know no other European country has adopted such a "phisiocratic" system for its education policy. It would be extremely interesting if the Italian experience could be followed with particular attention by those research bodies particularly interested in the study of innovations which introduce such radical transformations in traditional education systems.

LAW OF 27th OCTOBER, 1969, No.754

Art.1 - Beginning with the school year 1969-70 special courses aimed at enhancing the cultural component of the first professional two-year period shall be established in State vocational training schools institutes by way of experiment and pending the reform of second-degree secondary education, by decree of the President of the Republic following a proposal by the Minister of Education and with the advice of a commission of experts appointed and presided over by the Minister himself.

Likewise by way of experiment and pending the reform of second-degree secondary education, after ascertaining that conditions are adequate, one-year or two-year or three-year courses shall be established as specified in the preceding paragraph in State professional institutes of the whole national territory, with the aim of extending their length to five years and providing students with the cultural and practical training of five-year second-degree secondary school level.

The courses specified in the preceding paragraph can also be established at technical institutes.

The number of special courses to be established as specified in the first paragraph of this article shall not be higher than fifty; the courses as specified in paragraphs two and three above shall not be more than three hundred and fifty.

The results of the experiment shall be evaluated by the commission mentioned in the first paragraph and its conclusions shall be made known to Parliament.

Art.2 - Students attending the courses specified by the preceding article shall be entitled to apply for the scholarships especially provided for students of higher secondary schools.

The Minister of Education is authorised to use, also for the purpose of setting up scholarships for the above mentioned students, moneys granted but not used for free or subsidized places in residential colleges as specified by art.19 of the Law of 31st October, 1966, No.942.

Local administrations and boards shall be entitled to allocate additional moneys to those as specified by the preceding paragraphs both to increase the amount of moneys allocated and to increase the number of scholarships granted by the State. Any expenditures voted by local administrations for this purpose shall be considered mandatory.

Art.3 - At the end of the courses specified by paragraphs two and three of the preceding article 1, students shall undergo a State examination for the purpose of obtaining a diploma of professional maturity equivalent to the diploma obtained at technical institutes of the corresponding type and valid for admission to the intermediate grades of the Civil Service and to University degree courses. To the President of the Republic's decree mentioned by the preceding article 1 shall be annexed a list specifying the validity of diplomas issued by vocational training schools with no corresponding type of school in the technical education sector, for the purpose of the above-mentioned admission to the intermediate grades of the Civil Service and to University degree courses.

Art.4 - The guiding programmes and timetables of instruction and examination for the courses specified by the first, second and third paragraphs of the preceding article 1, as well as the manner in which the examinations mentioned by article 3 above shall be carried out, shall be established by the Minister of Education on the advice of the Higher Council for Public Education and the commission mentioned by article 1 above, and may be changed from time to time on the basis of the results of the experiment.

Art.5 - Theoretical and practical instruction in the courses specified by the first three paragraphs of the preceding article 1 shall be entrusted to staff having particular, specific cultural training and proved teaching experience, to be selected according to principles established by order of the Minister of Education with the advice of the commission specified by the first paragraph of the same article 1.

Art.6 - The courses mentioned by paragraphs two and three of article 1 shall be open to students who have completed successfully the courses of vocational training schools of the same type.

Art.7 - The first paragraph of the single article of the Law of 31st March, 1966, No.205, is substituted by the following:

"A student who has passed or passes the final examination in vocational training school obtains a diploma of qualification which shall become valid in employer-employee relations after a period of practical activity whose length shall be determined by collective bargaining but shall not, in any case, exceed three months.

Art.8 - Recognition of diplomas of professional qualifications and of diplomas issued by former State technical schools and professional schools for girls and by those schools of the same type which were legally recognised within the meaning of article 3 of the Law of 21st April, 1965, No.449, may be granted for three years from the date of coming into effect of this Law.

Art.9 - The expenditures deriving from the coming into effect of this Law shall be covered by normal budget allocations as well as by those specified by the Law of 31st October, 1966, No.942, under items 2004, 2005, 2007, 2032, 2033, 2035 and 2037 of the Ministry of Education Expense Estimates for the fiscal year 1969, and corresponding items of following years.

LAW OF 11th DECEMBER, 1969, No.910

Art.1 - Pending enactment of the University Reform Bill all degree courses are open to:

(a) holders of diplomas issued by five-year, second degree secondary schools, including linguistic lyceums recognised by law, as well as those who have completed the complementary courses specified by the law authorising their experimentation in vocational training schools;

(b) holders of diplomas issued by teacher training schools and art schools who have successfully completed a one-year complementary course to be organised in every province by the Provincial Board of Education, under the Universities' didactic and scientific responsibility, on the basis of instructions which shall be issued by the Ministry of Education.

Students following the above-mentioned one-year complementary courses are entitled to a deferment of their military service according to existing legislation on this matter.

Pending enactment of the Higher Secondary School Reform, diploma holders issued from teacher training schools and art schools shall still be entitled to admission to those degree courses to which they are entitled under the laws existing at the date of enactment of this Law; during the same period of time, moreover, the validity shall continue of Decree-Law of 22nd December, 1968, No.1241, converted into the Law of 12th February, 1969, No.8, concerning admission to University Teacher Training Courses (facoltà di magistero) and Higher Schools of Teacher Training (Istituti superiori di magistero).

Staff teaching in second-degree higher secondary schools, entrusted with teaching in the courses specified by paragraph 1(b) of this article, can be exempted for a corresponding number of hours from normal teaching duties. Any excess hours above the mandatory number of hours shall be paid at the rate of one-eighteenth of the salary due for each weekly hour and for the actual length of the course.

Independently from the higher secondary school diploma held, any degree holder is entitled to admission to any other degree course.

For the academic year 1969-70 students entitled to University admission under this article shall hand in their application forms not later than 31st December, 1969.

Art.2 - For the academic year 1969-70 students can submit curricula different from those laid down by existing didactic rules, provided the subjects are selected among those actually taught and their number is that laid down by existing rules.

The curricula are submitted for approval, not later than the month of December, to the Faculty Board which issues its decision taking account of the cultural formation and professional preparation required of the students.

Art.3 - Students receiving the study grants laid down by the Law of 21st April, 1969, No.162, are exempted from payment of any University taxes, surtaxes, secretarial dues and any other charges.

Art.4 - Staff in charge of teaching in Universities or University-level Institutes, including Schools of specialisation or perfecting school, in both academic year 1968-69 and 1969-70, are entitled to confirmation in their posts for the academic year 1970-71 on their own request, following an application to be handed in within 90 days from the date of coming into force of this Law, except in cases of earlier cassation as laid down by the second paragraph of article 10 of the Law of 24th February, 1967, No.62.

Assistant Professors are entitled to the provisions of the preceding paragraph even if they have been in charge of courses only during the academic year 1969-70.

The provisions of this article do not apply to Ordinary and Extraordinary University Professors in charge of supplementary courses.

The term of validity of the three-man selection lists for University professorships as specified by existing legislation is extended by one year.

Art.5 - As from 31st October, 1969, articles 8 and 28-ter, last paragraph, of the Legislative Decree of 7th May, 1948, No.1172, as ratified with modifications by the Law of 24th June, 1950, No.465 and following modifications, are abrogated.

Paragraphs one and two of article 4 of the Law of 18th March, 1958, No.349, as substituted by article 8 of the Law of 26th January, 1962, No.16, being still valid, an Assistant Professor who is not Free Professor (Libero docente) is entitled to the second and first salary grade on completing respectively the sixth and fourth year in the preceding grade.

An Assistant Professor who is not a Free Professor is entitled, on reaching the second grade of salary, to the provisions of existing legislature in respect of Assistant Professors who are Free Professors.

The period of service served by an Assistant Professor who is not a Free Professor in the third salary grade in excess of the period laid down by the second paragraph of this article for passage to the second salary grade can be computed for the purpose of passage to the first grade.

Art.6 - The greater sum to be allocated in the year 1970 under article 28 of the Law of 31st October, 1966, No.942, is increased by 5,000,000,000 Lire.

Art.7 - The expenditure deriving from application of this Law in the financial year 1970, estimated at 8,000,000,000 Lire, is to be covered by reduction of the allocations under item 3523 of the Ministry of the Treasury Expense Estimates for the same financial year.

The Minister of the Treasury is authorised to provide by his own decrees for the necessary budget variations.

Table 1 - ITALIAN EDUCATIONAL SYSTEM BY LEVELS, TYPES AND STUDENTS ENROLMENT

(1968 - 1969)

School Year	Age Year
1	6
2	7
3	8
4	9
5	10
6	11
7	12
8	13
9	14
10	15
11	16
12	17
13	18
14	19
15	20
16	21
17	22
18	23
19	24
20	25

PRIMARY SCHOOL
4,706,000

MIDDLE SCHOOL
1,982,000

Primary Teachers School	Art. Schools	Classical Lyceum	Scientific Lyceum	Technical Institutes (*)	Vocational Institutes 214,000	Extra school vocational systems
249,000	48,000	198,000	185,000	619,000	Experimental 3 years type	
Propedeutical year to Univ.						

UNIVERSITY FACULTIES		
	Archt. (4)	11,638
	Litter. Phil. (4)	143,991
	Sciences (4)	68,026
	Medicine (6)	48,701
	Law (4)	43,064
	Pol. Sciences (4)	9,469
	Engineering (5)	50,530
	Agronomy (4)	6,434
	Statistics (4)	2,722
	Economics (4)	93,252
	Pharmacy (4)	6,979
	Veterinary (4)	1,332
	Phys education (3)	3,291
	Naval inst. (4)	2,477
	Others	1,706
	T O T A L	496,406

Admission to any faculty from any type of five year secondary school: neither entrance examinations nor enrolment limitations.

(*) = 8 types : commerce, agronomy, surveyors, naval, girls, industrial, tourism, firm secretariat.

Table 2 - PUPILS' ENROLMENT BY AGE IN DIFFERENT TYPES OF SCHOOLS

1966 - 67

AGE	LIVING PUPILS	PRIMARY SCHOOL	MIDDLE SCHOOL	VOCATIONAL SCHOOLS	TECHNICAL INSTITUTES	TEACHER SCHOOL	LYCEUM	ART SCHOOLS	TOT. ENROL.	
									N.	out of 100 living
up to 6	—	6,645	—	—	—	—	—	—	6,645	—
6-7	859,000	860,407	—	—	—	—	—	—	860,407	100.16
7-8	855,000	852,784	—	—	—	—	—	—	852,784	99.74
8-9	822,000	820,907	—	—	—	—	—	—	820,907	99.87
9-10	824,000	813,893	—	—	—	—	—	—	813,893	98.77
10-11	812,000	755,156	45,497	—	—	—	—	—	800,653	98.60
11-12	814,000	291,274	452,908	—	—	—	—	—	844,182	91.42
12-13	803,000	138,005	538,927	1,332	20	14	155	4	678,457	84.49
13-14	776,000	51,847	488,828	3,275	7,061	5,060	18,147	359	574,577	74.56
14-15	774,000	8,030	198,886	27,652	77,959	46,908	70,736	3,688	433,859	56.05
15-16	784,000	2,500	70,057	38,883	96,538	54,797	64,655	5,156	332,586	42.42
16-17	827,000	—	20,548	40,610	101,450	51,961	57,597	5,956	272,167	32.91
17-18	830,000	—	5,355	27,019	97,974	40,896	50,302	5,533	227,079	27.36
18-19	885,000	—	1,970	15,262	92,445	23,514	37,029	4,134	174,354	19.70
19-20	879,000	—	862	6,818	60,585	12,130	14,733	2,603	97,771	11.12
20-21	883,000	—	376	2,654	32,603	5,817	6,001	1,386	48,838	5.53
21-22	698,000	—	260	1,071	13,955	2,289	1,707	680	19,962	2.86
22-23	723,000	—	211	745	7,280	1,093	538	314	10,181	1.41
23-24	741,000	—	200	572	4,349	677	200	187	6,185	0.83
older than 24 years	—	—	806	2,609	10,350	1,545	240	403	16,038	—
6-11	4,172,000	4,103,147	45,497	—	—	—	—	—	4,148,644	99.44
11-14	2,393,000	481,126	1,480,663	4,607	7,081	5,074	18,302	363	1,997,216	83.46
14-19	4,100,000	10,530	296,816	149,426	446,366	218,077	280,319	24,467	1,426,001	[illegible].78

Table 2 - PUPILS' ENROLMENT IN PUBLIC AND PRIVATE SCHOOLS

	Public %	Private %
Primary	94.33	5.67
Middle	96.65	3.35
Secondary	84.85	15.15
University	92.60	7.40
	Male %	Female %
Secondary	63.30	36.70
University	62.97	37.03

TABLE 3

YEARLY GRADUATION IN DIFFERENT TYPES AND LEVELS OF SCHOOLS

(1967)

SCHOOLS	NUMBER OF GRADUATES	
	TOTAL	OUT OF 100 LIVING IN THE GROUP AGE
PRIMARY SCHOOL	744,600	91.3
MIDDLE SCHOOL	478,900	61.1
VOCATIONAL SCHOOL (2 years)	60,405	7.5
SECONDARY SCHOOLS (4-5 years)	164,800	18.7
Classical Lyceum	30,330	3.4
Scientific Lyceum	16,813	1.9
Primary Teachers Training School	33,462	3.8
Technical Institutes	82,583	9.4
Art School	1,648	0.2
UNIVERSITY	29,420	3.9
Sciences	4,665	0.62
Medicine	2,645	0.35
Engineering	3,284	0.44
Agronomy	601	0.08
Economics	4,314	0.58
Law - Political Sciences	5,508	0.73
Literature - Philosophy	7,446	0.99
Other	957	0.13

EXAMPLES OF SECONDARY REORGANISATION IN EUROPE

by Susanne MOWAT
Centre for Educational Research and Innovation

One of the main purposes of an international workshop is to facilitate the sharing of experience on an international basis. Therefore it was not surprising that methods and plans for the restructuring of upper secondary education in Member countries other than Italy was a topic that received much attention at the Frascati Workshop. As experts from the various countries represented discussed their experience and their plans for the future it became obvious that similar problems and concerns faced all of them. Under these circumstances, the placing of Italian plans into an international context was a valuable exercise.

The following pages attempt to summarise the trends that emerged from the discussions and to present in detail some of the national plans that were discussed. It is not an exhaustive summary, either of upper secondary school reform in general or of the particular plans that were discussed in the workshop proceedings.

The overwhelming fact facing most educators is that more students are staying in school for a longer period of time. Partly this trend reflects economic necessity; partly it results from conscious government decision and partly from individual choice. In order to meet the demands of both students and society, educational systems are changing in structure and in curriculum. At the upper secondary level these changes manifest themselves in a number of ways. Differentiation or streaming, for example, takes place at a later stage; rather than being selected for a particular academic and therefore social future at (perhaps) age 11, students are receiving a common curriculum for a longer period of time. When it does occur differentiation tends to be more flexible with structures designed to permit lateral switching between programmes. Gradually the emphasis is moving away from 'selection' to 'options'.

At the same time curriculum is becoming less standardised, more responsive to local needs and to the individual needs of students. The concept of vocational training is changing; it starts later and at its most advanced stage tends to concentrate on fairly specific preparation for particular job opportunities. A vocational training programme may be incorporated into the curriculum as a lateral outlet that provides students with opportunities to re-enter the general stream at a later stage.

These developments are not taking place overnight, nor in the space of a year or two. The vast reallocations of human and financial resources involved require long-range planning and step-by-step implementation. Most of the current national developments discussed at the Frascati

Workshop are extensions of reform movements which began at least 25 years ago. Especially when new plans represent a radical departure from the past, their implementation has to be a thoughtful and cautious process.

A clear difference in national style can be seen in the extent to which planning takes place on a national or central scale or the extent to which authority is decentralised. Of all the countries represented at the workshop, it is England which functions with the greatest local autonomy. Reorganisation of secondary schooling along comprehensive lines has been taking place since 1945. As local education authorities traditionally have been responsible for drawing up their own plans for reorganisation there is a great variety of structure among various authorities. (There is also a great variety of structure to be found within them where, for example, the existence of voluntary and grammar schools beyond the authority's control have made total abolition of selection impossible). The most common reorganisation scheme is 11 to 18 schools; many more recent plans propose middle school schemes, two-tier schemes(1) and sixth form colleges. Several combinations of different schemes have been developed to suit existing buildings and resources. Curriculum remains the responsibility of the individual headmaster.

Somerset is one County in England that is planning a post-16 college to replace the existing grammar and secondary modern schools by 1974. Under this scheme, which is presented in Fig.I, all students in the community will receive a common curriculum until they reach the age of 16, at which point all who wish to continue their education will enter a community "college". It is expected that about 50 per cent of the 16-year-old age group will become full-time students taking a one-year or two-year programme; about half of the other 50 per cent who take up employment at the age of 16 will become part-time students at the college on one or two-year programmes, perhaps studying one day a week. Adults already at work will also be able to take advantage of the part-time education facilities. The college will consist of about 1,000 full-time students and 2,000-3,000 part-time students thus enabling a full range of options to be presented. Courses to some extent will be determined by local needs.

The Scandinavian countries clearly show a pattern of long-term national planning directed from a central government source. Sweden in 1940 launched a ten-year investigation into what society and the individual required of a modern educational system. Ten years later the

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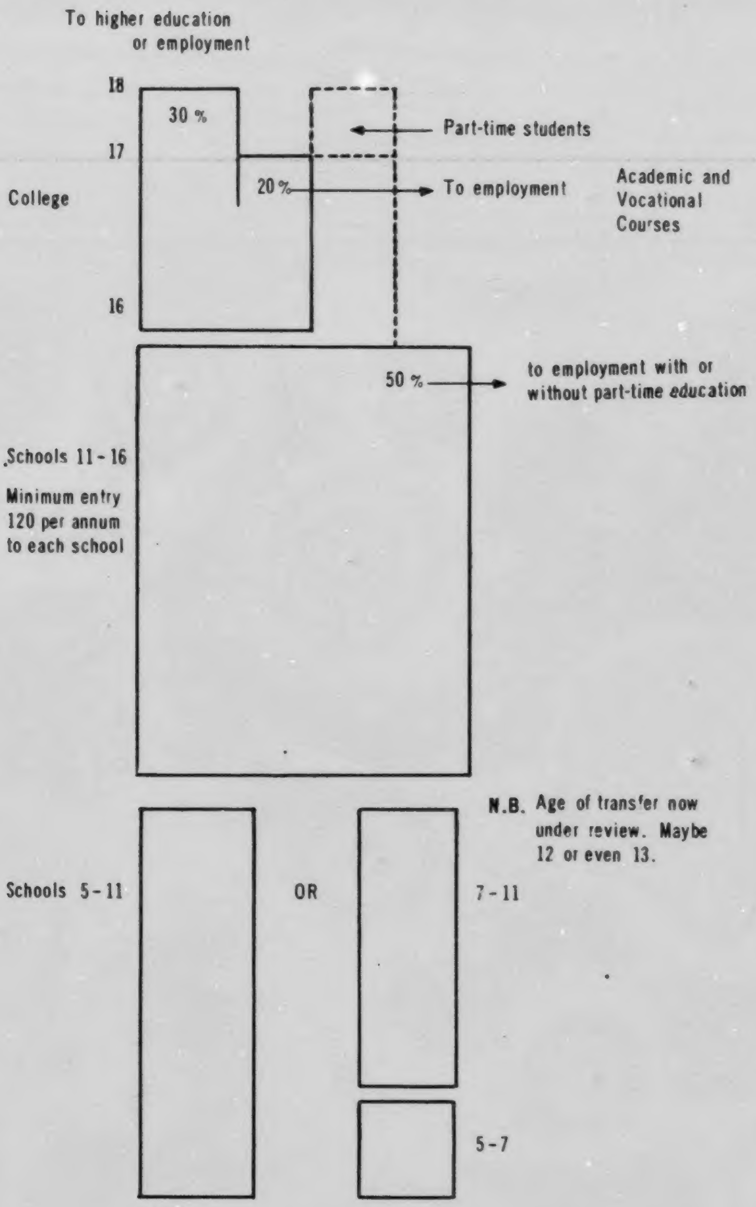
(1) The Leicestershire scheme indicates what is meant by "two-tier". In 1957 the authority proposed that all children should go to the same "high" school at 11 and at age 14 those whose parents wished them to do so could transfer to an "upper" school, provided they stayed there until 16 at least. Gradually this scheme was extended and in 1969 transfer to the upper school became automatic for all. The high schools therefore enjoyed the full range of pupils, graduate staff, and equipment better than that of their secondary modern days. Examination pressures were confined to the upper schools although these schools too have gradually become more comprehensive. Furthermore, the schools have remained small (500-600 students) and have been able to use the previously existing small buildings.

Figure I

THE POST-16 COLLEGE


To higher education or employment
18
30 %
17
Part-time students
College
20 %
To employment
Academic and Vocational Courses
16
50 %
to employment with or without part-time education
Schools 11 - 16
Minimum entry 120 per annum to each school
Schools 5 - 11
OR
7 - 11
5 - 7

N.B. Age of transfer now under review. Maybe 12 or even 13.

Swedish Parliament decided that the traditional school system comprising a six or seven-year elementary school followed by a large variety of lower secondary schools should be replaced by a nine-year comprehensive school comprising primary education during the six first years and a lower secondary education for all during the last three years. Nationwide experiments on the functioning of this new school were started in 1950 and lasted until 1962, during which time more than half the nation turned over to the new system.

In 1962 Parliament decided that the nine-year comprehensive school (with some modifications of the tryout models) should be introduced all over the nation during the 1960's. During this decade upper secondary education was broadened to include different types of education and in 1969 Parliament decided that all vocational education would, from 1971, be given within a comprehensive "gymnasium".

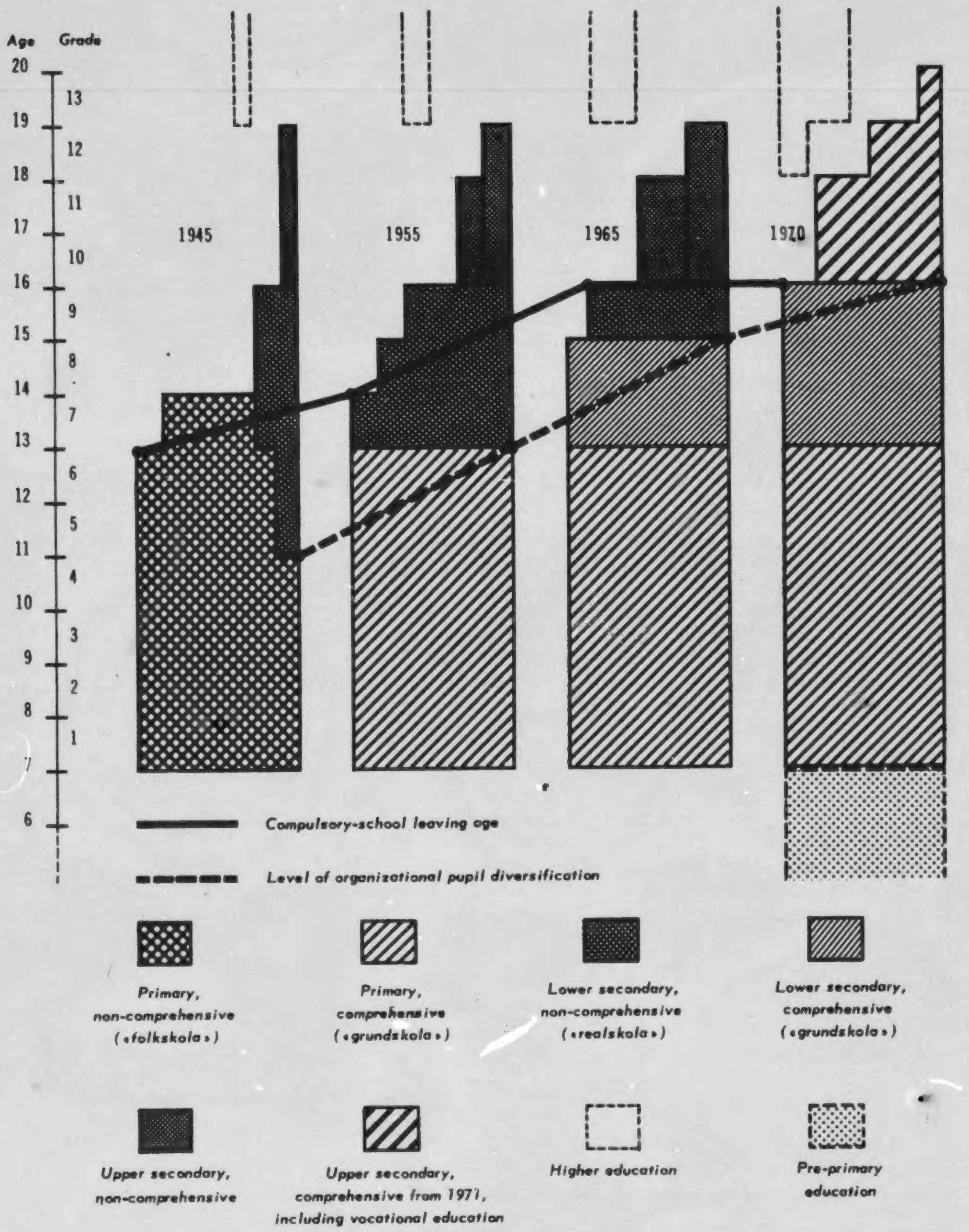
The gradual changes are shown in Fig.II which indicates the relationships between different types of education and also rough estimates of the total numbers of students that attend different types of schools.

> The 1945 diagram shows the old system with primary and secondary schools partly parallel to each other and with very few students receiving secondary education.
>
> In 1955 the comprehensive school experiments had been conducted for a few years. During this time students in grades 7-9 were usually streamed into academic, pre-vocational or general programmes. At the same time the building up of the vocational school system was started on a broad scale and lasted until the middle of the 1960's.
>
> The 1965 diagram shows the results of a 1962 parliament decision that grades 7 and 8 should be non-streamed. Differentiation thus occurred when a student reached 15. Reformation of upper secondary education began with the introduction of a new two-year gymnasium ("fackskola") and a new three-year gymnasium or four years for the technical stream.
>
> From 1970 the entire nine-year comprehensive school is non-streamed, which means that pupils are not divided up according to their electives. The different types of upper secondary schools ("gymnasium", "fackskola" and vocational schools) are from 1971 coordinated into a comprehensive gymnasium with 21 streams, within which gradual differentiation takes place.

The general aim of the gymnasial school is to give the students of the former vocational lines a much better basis for their future profession and also to give them a chance to transfer from one stream to another during their secondary education. Some of the 21 lines within the new gymnasial school include 2-year courses in building and construction, office work, economics, motor vehicle mechanics, agriculture, social sciences, technology, workshop mechanics or nursing; 3-year courses in economics, liberal arts, natural sciences, or civics;

Figure II

SWEDISH EDUCATIONAL REFORM



4-year courses in technology. Some of these courses were formerly offered in the continuation school, while others (e.g. the 3 and 4-year courses) are of gymnasium origin.

The curriculum for the vocational sector is characterised by the concept of block training in which the vocational preparation of young people will be built up in stages from a broad basic introduction phase through gradually increasing specialisation. Occupations of similar type will be brought together in occupational "families". The base block will contain training useful to the entire family of occupations. In the next block, training will be differentiated to some extent according to requirements of the different occupations, and finally there will be a block with vocational training adequate for each specific occupation.

Vocational training will also include three general compulsory subjects: Swedish, civics and physical training. Students also may choose voluntarily another general subject from other lines of the gymnasial school. This choice would involve 3 hours weekly. In the second-year course, it is possible for students to exchange up to 12 hours weekly within the professional skill training section and choose among general subjects. This choice must be confirmed by the headmaster and must be of some value for the pupils' future profession.

Norway provides another example of how a school system has developed a new structure over a long period of time. In 1935 a law was introduced which divided the pupils into two different school systems after seven years of primary school. When they were fourteen one group went to the Realskole with the possibility of later study at the gymnasium. The other group went to the continuation school and received a more practical education designed for people going on to vocational schools. In 1955 a law was introduced which allowed communities, if they wished, to build common schools combining these two types. In the next five years many communities built common schools containing two very different tracks more or less equivalent to the previously existing Realskole and the continuation school.

In 1960 schools were rearranged so that the 7th grade became an orientation route for all students; the last two years were divided into two tracks, each containing many subjects. In 1964 tracking was abolished in the last two years and students followed a programme of core curriculum and electives through the 9th grade. In mathematics, Norwegian, English and German, however, a student could choose to study at one of three different levels and only the students who chose the most difficult level could enter the gymnasia. Since 1964 experiments have been conducted in individualised learning in these four subjects including self-instructional material and new teaching/learning systems. From 1968 schools could offer individualised instruction combined with a flexible teaching in Norwegian and mathematics. Therefore, the 9-year school can be made completely flexible when the system is fully developed.

The future pattern of the Norwegian school system will consist of a 6-year elementary school, a 3-year comprehensive junior high school and a 3-year senior high school. The senior high school has just begun to experiment with combined vocational and gymnasium training(1).

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(1) Plans for this project are discussed extensively in a background paper written for the Frascati Workshop, Petterson K. Fr., Education for the Age Group 16-19 years in Norway (CERI/EI/I/70.01). The following description borrows heavily from Mr. Petterson's material.

This combined school began with the appointment in 1965 of a Committee to evaluate the need for education and training of the 16-19 age group and to present a plan for the development of a school system that would offer students of this age group equal opportunities for their education and personality growth. It was the Committee's feeling that all students should have the opportunity to attend at least three years of upper secondary school; that the choice of an educational course should be free and transition from one course of study to another possible; that it must be possible to combine general education and vocational training and to provide supplementary training in those subjects where necessary. Furthermore it was felt that instruction must, as far as possible, be adapted to the individual's qualifications, abilities and interests.

The Committee therefore proposed that pupils who choose upper secondary schooling may choose between a one-year basic course (fundamental vocational training as well as some instruction in general subjects) and a two-year basic course (a nucleus of general subjects, with possibilities to add vocational subjects which over a period of two years would produce the same competence as the one-year basic vocational training course, or to add special subjects such as art or athletics, or to supplement extensively the general subjects). Pupils taking the one-year basic course should be able to apply for vocational training through a second or third year. Pupils from the two-year basic course should be able to apply for the same vocational training as pupils from the one-year basic course or for a third additional year of general subjects. Pupils who choose only general subjects in the two-year basic course and the third additional year will follow the new gymnasium structure with slight changes.

The Committee's model for the future upper secondary school system can be seen in Fig.III.

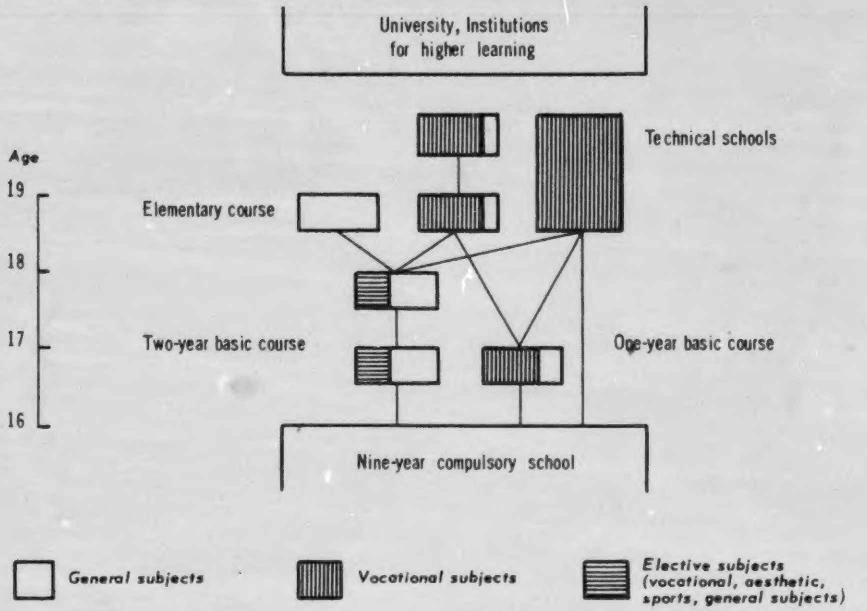
The National Council for Innovation in Education (NCIE) has planned experiments with the new school reform according to a time-schedule covering at least the next seven years. It is felt that institution of this new structure represents the greatest school reform in Norway in this century.

Another radical break from the past is represented in the plan recently published in Bildungsbericht 70, the report on education policy of the Federal Republic of Germany. As can be seen by comparing Fig.IV, which represents the existing structure, and Fig.V, the new plan calls for a lengthening of general education and a greater flexibility to allow individual needs of students to be met. An orientation phase in the first secondary level is followed by the introduction of some optional courses; the second secondary level includes core subjects, special subjects and optional courses as well as vocational branching.

Other national plans were presented to the workshop participants and it is unfortunate that space does not allow an exposition of them all. It is also unfortunate that exercises such as the Frascati Workshop do not take place more frequently. Judging from the similarity of the plans presented, it seems that a strengthening of the informal network of educators concerned with secondary school reform would be mutually beneficial.

Figure III

FRAMEWORK OF THE NORWEGIAN UPPER SECONDARY SCHOOL


University, Institutions for higher learning
Technical schools
Age
19
18
17
16
Elementary course
Two-year basic course
One-year basic course
Nine-year compulsory school
General subjects
Vocational subjects
Elective subjects (vocational, aesthetic, sports, general subjects)

One-year Basic Course

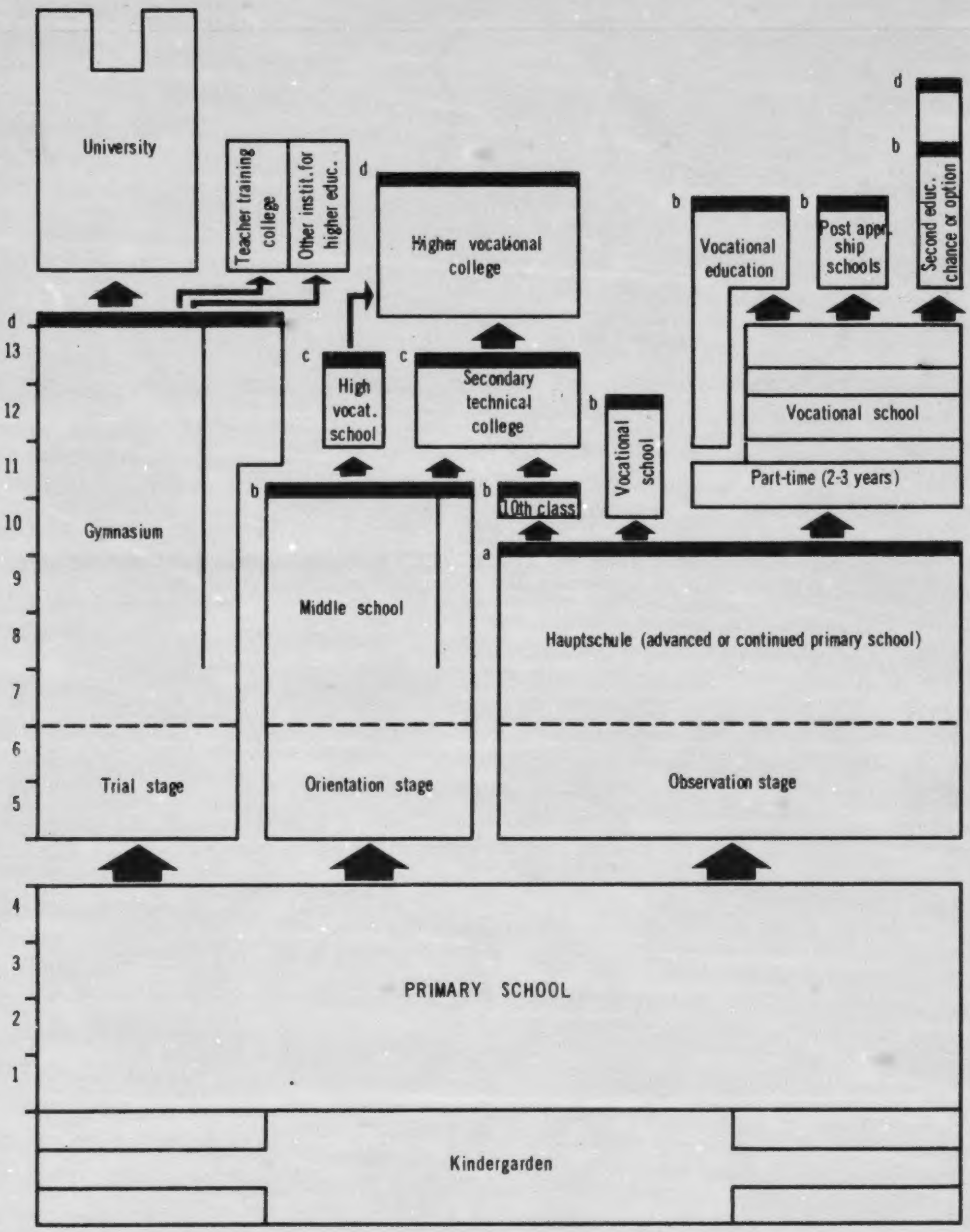
	Hours per week
General subjects (Norwegian, social sciences, maths., general science, English, physical education)	approx. 10
Vocational subjects	26 - 28
	36 - 38

Two-year Basic Course

	Hours per week	
Compulsory subjects (nucleus of subjects):	1st. yr.	2nd. yr.
Norwegian	4	4
Religion or philosophy	1	1
English	4	3
Social sciences	3	4
General sciences	2 (5)	3 (0)
Physical education	3	3
	17 (20)	18 (15)
Block of subjects (points out direction of studies)	9-13	8-13
Subjects as electives and for independent work at school	6-10	5-10
	36	36

Figure IV

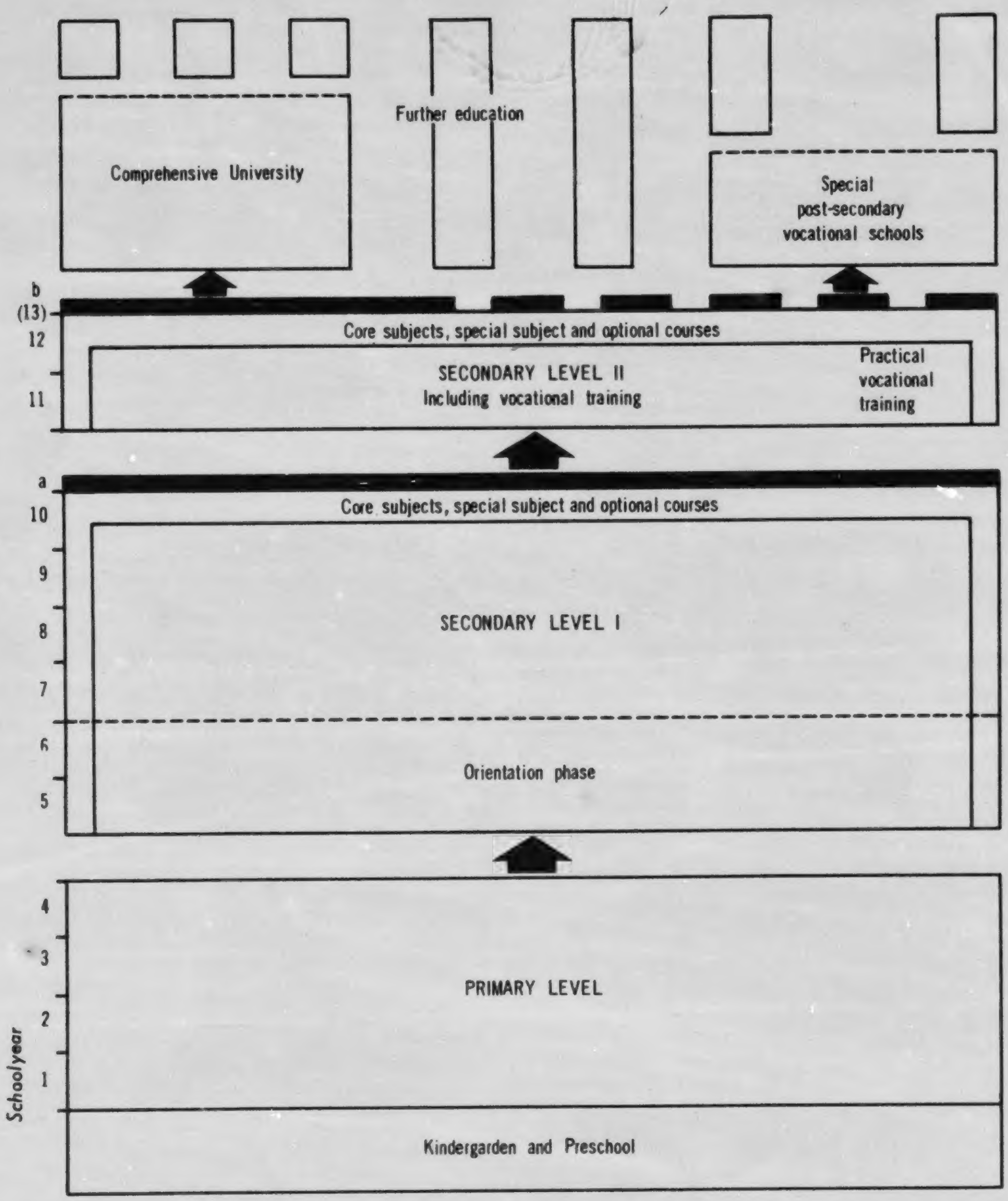
EXISTING EDUCATIONAL STRUCTURE IN THE FEDERAL REPUBLIC OF GERMANY



a. final Hauptschule exam;
b. final exam equivalent to middle school;
c. qualification equivalent to enter higher vocational college;
d. university entrance qualification.

Figure V

EDUCATION STRUCTURE FOR THE FUTURE
IN THE FEDERAL REPUBLIC OF GERMANY



Qualifications : a = Abitur I [(GCE) o-level] b = Abitur II [(GCE)-A level]

REPORTS OF THE SMALL WORKING GROUPS

GROUP 1: OBJECTIVES OF THE NEW SECONDARY SCHOOL

A. Secondary education as a stage complete in itself, contrasted with the propaedeutic function (i.e. preparation for further study and vocational training). It was agreed that in general too much importance is given to the preparatory function of higher secondary education. In Italy until now, too much importance has been given to literary rather than to other studies. Even the sciences, to which not enough time has been devoted anyway, have suffered from a method of teaching which is more descriptive than experimental. There are few indications of the value of the methods used at present. We feel authorised to hypothesise that a scientific and technical training based on practical experiment, which does not necessarily coincide with the traditional scientific subjects of study, but which is extended to include the social sciences and the humanities, could be extremely effective.

As regards the requirements of vocational preparation, there was general agreement that the senior secondary school could be given the responsibility for general training which, together with a well-planned system of options, would guarantee a readiness for vocational specialisation. Such emphasis on general training is not a matter of principle, but corresponds to the present and increasingly widening tendency for education to give more importance to cultural preparation than to specific training for industry.

This theory is upheld by all indications coming from the technologically advanced societies. However, it must not be forgotten that, although industrial demands must be satisfied, the primary goal of education is to form a self-sufficient personality capable of contributing effectively and decisively to his society.

B. Functions and objectives of vocational training. A level of general education which for the moment is completed at the age of 16, after 10 years of compulsory schooling, is a precondition of vocational training in the proposed unified secondary school. A student could begin vocational training, therefore, either after two years or after four years of secondary education, according to whether or not compulsory education is extended until the age of 18. Should the age of starting school be lowered to 5 years of age, the number of years of schooling and the age limit for the beginning of professional training remain unchanged.

In the future, vocational training must consist of a wide diversity of choice of study material and subject matter. All this will be offered outside the basic scholastic curriculum, but should be organised within the particular geographic area by authorities, including representatives of local government, labour and industry.

The school should make full use of its existing resources and equipment.

C. Equality of opportunity. As far as equality of opportunity is concerned, one must point out the necessity of achieving this goal by endeavouring to provide:

(a) an adequate distribution of schools;

(b) economic assistance to pupils and their families;

(c) provision of the necessary infrastructure;

(d) use of every means at hand to overcome deficiencies caused by environmental conditioning.

D. Individualisation. From the instructional point of view the problem is extremely complex, but not impossible. There was general agreement upon the following points:

(a) usefulness of work in small groups guided by student teachers;

(b) remedial education,especially for the basic skills, where necessary;

(c) use of new techniques and methods of learning and quality control (including programmed instruction, teaching machines,etc.);

(d) experiments of teachers teaching each other and of encouragement of self-assessment. It is necessary, however, that the problem of teachers' preparation and keeping up to date should be faced seriously.

E. Freedom of choice of content and method of learning. It is advisable that the pupil proceeds from group work to individual study according to his age and experience. This gradual process should take into account both the practical behaviour but also the intellectual behaviour of the student. The difficulties of such a procedure are notable: psychological difficulties inherent in the developing child and difficulties inherent to the paternalistic attitudes which have prevailed until now in education. In this sector noteworthy experiments in democratisation are being made possible and carried out even if first examples have been ineffective.

GROUP 2: RELATIONSHIPS TO OTHER EDUCATIONAL INSTITUTIONS

The first problem considered was that of deciding the optimum age for university entrance. Psychological, pedagogical, sociological and economic arguments lead to the recommendation that preparatory studies should end at the age of 18, quite apart from the question of beginning elementary schooling at age 5. Fixing the elementary schooling from 5-10 years would help to eliminate a certain scholastic discrimination which takes place in the pre-school years and has lasting adverse consequences of disorientation. (Research and experiments in Italy as well as elsewhere bear out this theory of discrimination and disorientation).

This change in the age of school attendance from 5 to 18 years requires a change in teaching methods which, together with the earlier maturity of pupils, generally existing today, should lead to a reduction in the age at which the student finishes high school.

The group also agreed that lowering the university entrance age to 18 years cannot be achieved immediately without the danger of a breakdown of the university system. Following the experience of the German Federal Republic, the following possibility was considered, namely the introduction of special courses allowing for greater flexibility in the duration of the high school studies. These courses could be given without provoking undue social as opposed to intellectual discrimination because they would lack traditionalism and would be independent from the normal curriculum. Large groups would be given to technical, social and economic subjects.

As regards the relationship of the new secondary school to the university, it seems advisable that the university itself be able to provide two or three-year programmes leading to more practical qualifications than those of the present degree programmes, but which would permit continuation of higher studies.

As regards free access to the university by any student who has completed a five-year course in a secondary school, no matter what type it may be, it was clearly affirmed that the present regulation regarding unqualified admission to any department cannot necessarily be considered feasible for the future. (This does not mean that the value of the innovation which took place in the present situation is not recognised). In the future it would seem wise to suggest a single high school diploma with 6 or 7 streams or branches of study which could be connected to the options taken in the course of high school study and which would permit free access to a faculty of the university corresponding to these branches of study. For other institutes, faculties, or degree courses, the student should be admitted on a 6-month trial period in which special preparatory courses are given as already provided for in the existing draft law approved by the Education Committee of the Senate. This law provides for compulsory examination at the end of said courses.

With regard to the final examinations (esame di maturità) of the secondary schools, general dissatisfaction was expressed with the present form (experimental). It was emphasised that the examination should refer specifically to the optional subjects chosen in the new type of secondary school and that it should include questions of a general and interdisciplinary nature. This would provide a comprehensive evaluation including a judgement on the basic subjects common to all pupils graduating from that particular school.

Two plans were submitted with regard to remedial education and for reorientation. The first is a "vertical" plan and concerns those students who have not followed a normal course of study because they have dropped out or for some other reason, and who wish to catch up with their studies. The second, "horizontal" plan is for reorientation and concerns those students who have requested to change their field of study or to enter another course. It is necessary to distinguish between the terms "permanent education" (educazione permanente) and "recurrent education" (educazione ricorrente). The former is more vague and includes non-school forms of instruction and sources of information such as mass media, etc. The latter involves a periodic return to institutionalised education. These refresher courses are essential today because of the rapid obsolescence of technical and scientific knowledge.

According to this way of thinking, it was strongly reaffirmed that all men, from the most skilled to the least skilled (and particularly the latter) have an inalienable right to the same amount of organised education throughout their lives. As continuing education obviously concerns mainly adults and workers, it is to be hoped that the problem will be studied at the political and trade union levels (government, union, industry) before the scholastic level. A law is considered necessary whereby the financial burden of such instruction should be borne by the community and whereby an adult worker temporarily on leave in order to study or retrain should continue to receive his full salary.

The firm should be obliged to retain the employee's place for his return and to contribute to the financial costs of his study, in the same way as it does for social security.

The problem of the training of teachers for this specific task of adult education (this applies particularly to teachers of scientific and technical subjects) must be given the most profound attention. It has been suggested that public and private industry should grant leave to enable their executives and technicians to attend university seminars giving the necessary teachers' training in view of their possible collaboration in continuing education to which their contribution could be invaluable.

The necessity for a teaching system which, by avoiding horizontal "breaks" or "divisions" corresponding to traditional scholastic levels, would assure a continuity between elementary and secondary schools was pointed out. This teaching system would be appropriate to the degree of psychological development of its students with balanced programmes avoiding harmful emphasis on particular types of education of the sort which are traditional in the Italian schools.

The central administrative structure of the school with its "vertical" divisions completely independent of one another (elementary, middle and upper schools) and "horizontal" compartments (classical, technical, vocational and artistic) should be replaced by departments responsible for the various general problems of the scholastic development. The delegates from Berlin and Sweden contributed valuable information to this discussion.

Relating to evaluation or "grades" (paper presented by Professor Visalberghi), the Italian educational system's serious lack of preparation on this subject was noted. Teaching staff lack knowledge of evaluation procedures and preparation in psychology; there is no practice of objective evaluation and joint discussion of programmes and pupils' level of achievement, apart from recent experiments with teachers' meetings in the middle schools. At the present stage, however, the evaluations made are more or less subjective and intuitive. The group unanimously agreed that the following steps should be adopted:

(a) the establishing of a central office dealing with evaluation,

(b) adequate educational research on this subject,

(c) the establishing of departments of educational science as part of the future university reforms,

(d) preparation and training of teachers in this specific field,

(e) an efficient medical-psychological service for guidance in each school.

The group emphasised that work leading to the solution of scholastic problems related to evaluation and grading is urgent and necessary even before any action may be taken on reforming the secondary schools. A sound solution to the former problem could contribute positively to a solution to the latter.

GROUP 3: PROGRAMMES, CURRICULA, DIFFERENTIATION

In accordance with the general guidelines approved by the plenary session, the Group began by discussing points (d) and (e) of the Topics for Discussion indicated, i.e. the steps to be taken for the carrying out of the proposed curriculum reform and the possible stages of development for the realisation of this reform in a new comprehensive secondary school.

However, it soon became necessary to refer back to points (a), (b) and (c) which appeared to be crucial, i.e. to define the role and the relationship respectively between the common core curriculum and the group of possible options, and how differentiation would arise and develop from this relationship.

Agreement was reached on a statement of principle that all pupils should receive a common core of instruction, especially in the first phase of the curriculum, i.e. the orientation phase of 1 or 2 years. There was no disagreement on the proposal that differentiation should be increased gradually.

Basically, the assumptions which emerged can be reduced to two general points:

(a) A group of common subjects and activities (common core) and a group of optional subjects and activities, plus a certain amount of time to be made available in the school timetable (as well as the necessary equipment, resources and staff) for activities, to be freely chosen on the students' own initiatives, independently of the streams that they are following.

The common core can be fixed according to either (i) content considered essential for all students or (ii) on the basis of a central axis of the "formal preparation" type (that is, of subjects which may be preliminary instruments for other subjects, e.g. logic, mathematics, theoretical and practical technology).

Options, according to the various views expressed, may be disciplines or activities not contemplated in the core, or may be more advanced studies, for example where a basic level is provided for all disciplines and for all pupils, and at least two advanced courses can be followed (only one in the final year).

(b) After a period of common studies, in which all pupils are taught in all fields, which is mainly a period of orientation (six months or a year), the pupil chooses among various "constellations", in which 4 or 5 types of courses already discussed in the plenary sessions (linguistic, social, artistic, scientific, and/or technological) are all present but with different emphases.

At this point the group agreed not to speak of "subjects" or "subject-matters" in order to avoid using old terminology which might compromise the need for radical innovation in curriculum, but rather of "fields" or related groups of disciplines, open to different interdisciplinary combinations.

The majority of the group, although appreciating and approving the desire for radical reform underlying hypothesis (b), which would certainly merit a trial, preferred hypothesis (a), or rather the various alternatives possible within the framework of hypothesis (a).

Whatever the solution or solutions adopted in the future, certain pre-conditions appear necessary, without which any change in the curriculum might well remain academic.

(1) The new school should be full time, and should unite all the various internal arrangements under one roof.

(2) The abolition of the rigid separation into classes and years by adopting systems along the lines of non-graded instruction.

(3) The endeavour to secure the maximum degree of individualisation both in instructional procedures and in the orientation of choices which should be as flexible as possible.

(4) Maximum flexibility in the individual and general curriculum with maximum freedom for teachers and students.

(5) Maximum switching possible between options.

(6) Maximum indicative approach in general instruction in order to eliminate wherever possible the separation between "subjects" and fields and the consequent arbitrary fixation of opinions as to content and methodology.

Finally, as regards stages and levels of execution, the group preferred to indicate only certain measures which should be taken prior to the reform or simultaneously with the first phase of its execution.

(a) Revision of the curriculum of the Middle School (Scuola Media) and in particular the abolition of the teaching of Latin in any form.

(b) Institution of an immediate general building programme on comprehensive lines.

(c) Experimentation for one or two years with a range of possible solutions to be guided by a special institute (to be set up) for school experimentation, which would co-ordinate and promote combined actions of university research, of teachers and of the administration.

(d) Preliminary retraining of teachers for their new tasks and the immediate institution of team-teaching, of psychological observation and guidance services, new forms of teacher-pupil relationships, etc.

(e) Control of education to be removed from the central Ministry of Public Instruction and to be given to the organisations to be set up as under (c).

GROUP 4: TRAINING AND RETRAINING OF SECONDARY SCHOOL TEACHERS

The Group dealt with the following themes:

(a) how teachers already in schools should be retrained;

(b) how to train new teachers for the secondary schools of tomorrow.

With regard to the first problem, the Group made the following recommendations:

(1) That the new legal status of secondary school teachers should provide for differentiation of functions (e.g. teaching, guidance, organisation, assistance, etc.) and mobility between them in relation to the future comprehensive community school.

(2) That encouragement should be given to the institution of permanent regional centres for in-service teacher-training.

  (i) These centres should be established with the co-operation of the universities and of the existing administrative and professional organisations, especially as regards their organisation.

  (ii) They should promote the retraining of teachers, even those belonging to different grades of instruction, corresponding to reasonably sized areas, developing methods based on the active exchange of practical experience, and avoiding the academic forms of the traditional lecture, and promoting scientific study of problems, practical experimentation and the verification of methods. Such educational research will be supported by a National Institute for Educational Research and by local University Departments of Pedagogy.

  (iii) The centres must be granted complete autonomy and independence and should be managed by the teachers themselves, in conjunction with experts and the school administration. For this purpose, it is recommended that there should be a reform in the school administration to permit self-government and participation of representatives of local administration, parents, labour, etc.

(3) Visits of representatives of the administration and of leading teachers to foreign countries should be organised in order that they become acquainted with foreign experience in school reform.

As regards the second problem, the Group consider that:

(1) The professional training of primary school teachers should come after they have completed their secondary studies and should consist of a two-year University course in the educational sciences and a semester of practice-teaching in schools.

(2) The training of secondary teachers should take place after the university degree course, in the form of an additional year devoted to the study of education and a semester of teaching practice.

(3) University courses and particularly those devoted to teacher training should develop research and study groups, should abandon academic and authoritarian methods, and should develop co-operation with serving teachers and the professional organisations concerned.

GROUP 5: THE STRATEGY AND MECHANISMS FOR CHANGE

The fifth work group was instructed to study strategies and mechanisms needed to bring about the change in existing school structures. This Group noted in the first place the great difficulty of bringing about innovations on a vast scale in Italian schools at any level in view of the rigidity of the Italian legal and administrative structures. After a lengthy and profitable discussion, the Group formulated a model for decentralisation of decision-making and of educational experimentation which to some extent takes account of Italy's administrative structures, but above all of the prevailing tendencies to modify them.

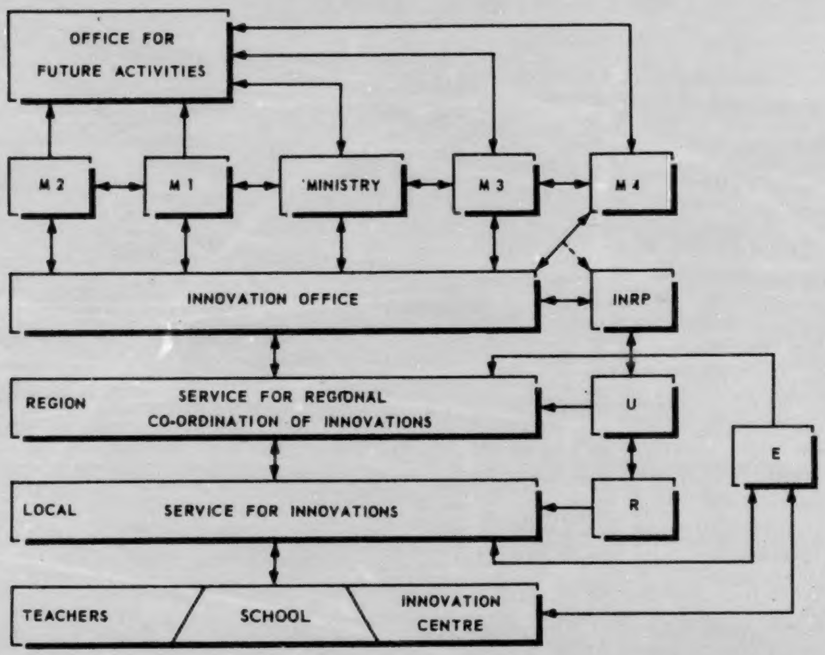
In school, teachers should be concerned not only with teaching, but also with other research and experimental activities. In addition to the teachers there should be an expert responsible for promoting change in conjunction with other schools and research centres.

At provincial level, an "Innovation Office" should promote "qualitative" programming, that is should be concerned with teaching methods and instruments, and should transmit the results of the various experiments to a regional co-ordination and programming service. The regional services in turn would report to a central office for the co-ordination of all national educational activities, including the creation of new types of school. Furthermore, this office would be responsible for documentation and information activities. All ministries concerned with education problems and Parliament itself would refer to this office.

Apart from this central office, there should be an office responsible for studying possible alternatives for the future, based on experiments carried out.

Parallel to this organisation there should be provincial research centres responsible for studying, in conjunction with the universities (or within them), problems arising from activities in education, and to inform the experts of the results achieved. The publishing world could play its part in this scheme by preparing the necessary learning materials.

The following diagram was proposed for discussion:

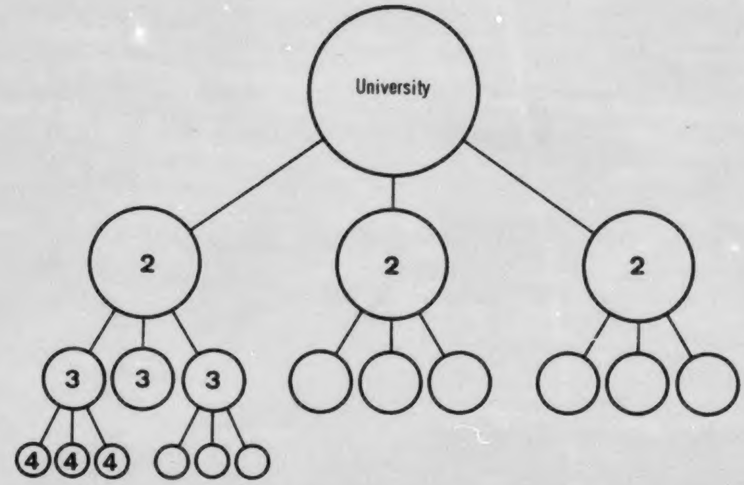


M = Project
R = Research Centre
U = University
E = Industry (Publishing, etc.)
INRP = National Institute for Pedagogic Research

Obviously, these regional or provincial services would have to be disengaged from bureaucratic organisations and entrusted to committees representing the various local communities and groups concerned with school life.

In order that this scheme may be put into effect, it seems necessary to undertake a large-scale training and retraining activity for teaching and administrative staff and for researchers, by involving them in the processes required for the transformation and by making them aware of the significance of the transformations themselves.

For this purpose it would be possible to use the method of Individualised Prescribed Instruction, IPI, (Research for Better Schools,Inc. (RBS), Philadelphia) starting from one or more central units from which clusters of other units would spread out, according to the following diagram:



Both these models might be tested in various ways in 3 or 4 regions during a given period of time and in relation to a particular sector of the school system, possibly the first two-year course of the Senior Secondary School.

As an alternative to these models, consideration might be given to the method of project programming at present under study at the ISPE.

TEN POINTS OF CONCLUSION ADOPTED BY THE WORKSHOP

At the conclusion of the international Workshop, after examining and discussing the documents prepared by the various small groups, the participants indicate in the following ten points the broad lines for the gradual restructuring of education at senior secondary level which they consider most appropriate to meet educational, social and economic needs of the Italian nation, within a framework of similar developments throughout Europe.

1. The senior secondary school should consist of a unitary structure, within which would exist some common subjects or activities, some optional ones and some elective (1), so as to permit a gradual educational orientation in specific directions. The common pedagogical axis ensures, in a flexible form, an education in the linguistic, logical and mathematical fields, and in the technological and scientific ones, and a critical introduction to historical and social problems. The individual choices integrate it without creating water-tight compartments.

2. The senior secondary school leads, after a five-year course, to a single final certificate or diploma, in which the educational stream followed is stated.

3. After an initial period of common instruction likely to develop the pupil and to determine his individual aptitudes and interests, differentiation is achieved in such a way as to encourage common activities and exchange of experience between pupils in different streams or tracks throughout the whole secondary course. Thus every secondary school should offer its pupils the opportunity to choose between all the curricula provided. These might be broadly classified as literary-linguistic, social studies, scientific, technological and artistic.

4. Secondary studies are not themselves of a vocational nature. The school offers the opportunity for pre-vocational training at various levels and allows lateral outlets. Vocational training proper takes place after these outlets (not earlier than the third year of study) and is the responsibility of the regional authorities or of private initiatives co-ordinated by the latter, in which professional and trade union associations also co-operate. Higher technical and vocational training takes place within the scope of the university, or in any case at university level, through two or three-year courses, all of which give access to further university studies on higher degree programmes.

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(1) The distinction is between courses which are parallel (optional choices) and elective extras.

5. The comprehensive senior secondary school is located and is of such a size as to meet the educational requirements of a definite school district. It will have to be free and fully allow the right to access without any discrimination. Free transport services and/or accommodation should make full-time attendance possible. In addition, it should be a centre for permanent or continuing education and for this purpose organise evening courses and correspondence courses, if necessary supplemented by the use of appropriate instructional technology. The right to benefit from continuing education in its various forms is guaranteed by law. The school and its facilities are at the disposal of the students for their own voluntary activities and of the community as a whole for cultural activities.

6. The gradual orientation of the pupils is made more effective by guidance and counselling services inside the school itself, in which all teachers co-operate. The effectiveness of each institution's teaching methods will be tested by regular national surveys, using modern methods. The methodical holding of such surveys or assessments will make it possible to accredit the school to make a final opinion on the fitness of its pupils, which would be valid for university entrance.

7. Students should complete the senior secondary school by the 18th year of age. For this purpose to be attained gradually by flexible procedures, it will be necessary to provide for improvement in instruction, by means of individualised teaching, the use of modern technologies of instruction and evaluation, and the stimulation of creative capacities; as well as by the reducing of negative environmental conditioning. For this purpose, compulsory schooling should begin at 5 years of age rather than 6, which would imply retraining primary school teachers for the new and delicate tasks involved. The school-leaving age should be raised immediately to 15 and subsequently to 16.

8. The training and retraining of teachers should be achieved by means of a basic programme for which the universities and appropriate regional organisations would be responsible. All future teachers will be trained in the universities, receiving thorough scientific training as well as completing appropriate practice-teaching aiming at degree level for all. This will make possible a substantial degree of unification of primary and secondary (middle) schools and a smooth transition to the senior secondary school.

9. School government must be democratic, with self-management co-ordinated at the level of the commune, the province, and the region and open to the participation of students and their families, and organised civil society. At the national level, the broad lines of the programmes and the inspection of experiments are the responsibility of a mixed body consisting of Members of Parliament and educational experts nominated by the latter. A National Institute of Educational Research is responsible for inspection and scientific experimentation and will avail itself of university co-operation at regional and local levels.

10. The new higher secondary school should be brought into operation by carefully planned successive stages, with particular regard to an organic plan for school building, planned from the beginning along the principles of comprehensive schooling and of the concept of a self-sufficing school district, and by means of a continuous process of experimentation and innovation, such as to draw the maximum advantages from the structural flexibility which should be permanently guaranteed to the new institution by the law.

A PERSONAL COMMENT

by

Stuart MACLURE, Editor,
The Times Educational Supplement

To a foreign participant the Frascati Workshop was a strange, sometimes frustrating, yet ultimately impressive affair.

It was strange because for much of the time - especially during the plenary sessions - the visitors from outside Italy were mildly baffled by what was going on. Few of them were closely acquainted with the Italian educational scene before they came. Each knew enough about comparative education to know its first principle - that education is intimately connected with the total social circumstances in which it takes place. For the foreign visitors, then, the workshop was as much a learning experience as an occasion for the sharing of expertise. Expert knowledge at an elevated level of generalisation was of limited value. What was needed was the testing of experience gleaned elsewhere in different conditions against the facts of the Italian situation (which themselves had to be established) - an unremitting search for those aspects of the international experience which were relevant in the Italian setting.

This was what the international part of the workshop was all about, and for much of the time communications were imperfect. It is no criticism of the indefatigable simultaneous translators to say that there were periods when a foreign participant might wait for a long time on the threshold of comprehension without actually crossing over and entering fully into a real understanding of what was being said. There were those (among the translators) who were prepared to put some of the blame for this on the complexities and the richness of the Italian language; others blamed the banalities of educational jargon which is unique among specialised languages in being designed to make communication not more precise but less; yet others suggested that there were times when the obscurity of the translation reflected obscurities in the discussion among the Italian members of the workshop - who understood each other well enough to read between the lines.

To add to this there were the moments when national traditions and temperaments collided. The OECD contribution tended to reflect a certain briskness and brashness which could be loosely linked with Scandinavia and Northern Europe. The Italian representatives observed this with tolerance and good humour - fascinated, it may be, by the administrative patterns expounded, and the administrative styles which went with them, yet determined to maintain their own tempo and their own cultural mores. It may be thought frivolous to start on this note. Yet it was everyone's effort to penetrate the barriers of language, temperament and culture, which made the workshop a genuine international occasion. This was the impressive side of it: when, mainly in the small group discussions and the social contacts which a residential meeting made possible, the mists of obscurity began to clear and the workshop came into its own, sorting out the multiplicity of ideas into some order, and formulating a series of conclusions and recommendations.

The cultural clash helped to crystalise ideas. The discussion was led away from abstract philosophical disputation to practical matters - the nuts and bolts of educational reform. Attention was concentrated on the alternative models for the superior secondary schools, and in particular for the first biennium. The models provided shorthand comments on the philosophy: they represented an attempt to build on what appeared to be some kind of consensus as to the possible next steps in Italian educational reform. Not everyone present was happy with this technique.

On the whole those who opposed a move towards a more comprehensive or unified secondary system forebore to say so straight out. This seemed strange to the outsiders present. In England, for example, any representative group of educators meeting to discuss the reorganisation of secondary education would be likely to have some fairly eloquent defenders of the status quo. But the absence of direct and open opposition to the next stage in Italian educational reform meant that many of the doubts which some felt about the projected models for reform were expressed indirectly, in a desire to talk about - say - the philosophical and cultural basis of secondary education which could be said to be a proper prior consideration to any discussion of any particular organisational model.

This was the key to the first day's plenary sessions, obscure as these seemed at times to those outside Italian educational circles. Large questions were being raised which were not answered. What should be the common core of Italian culture which should provide the basis of a unified secondary education? Implicit in some of the doubts expressed (or unexpressed) about the idea of a unified system, was an inclination to regard the high prestige curricula of the existing general secondary schools - the lyceums through which all or most of those present at the conference had themselves passed - as the core of secondary education per se. They had many criticisms to voice on methods of approach and points of detail but, for them, the process of secondary education, as a link between primary education below and university education above, was the initiation into a common cultural heritage, a set of common languages, verbal and numerical, artistic, historical and philosophical; an idea aimed at producing the cultured and cultivated Italian citizen, noble in itself, but raising all the fundamental questions about the nature of social and cultural values, and the relationship between culture (elite or otherwise) and society as a whole.

Here the unspoken question was still whether there can, either in theory or in practice really be a common core curriculum which at the same time takes due account of individual difference among pupils of the whole range of intellectual ability and social background, and yet also provides a genuine initiation into the Italian cultural heritage.

This question was never fully confronted, and the inevitable vagueness with which the common core curriculum tends to be discussed shrouds a profound ambiguity on this issue. Some would say - and have gone to great lengths to demonstrate - that a true common core can be created which is flexible enough to allow for the differences of learning pace and of motivation among children whose capabilities and interests vary widely. They would argue for the common school and the unified curriculum as the instrument for achieving a less divided community as well as for widening educational opportunity.

Others would argue for the common school on exactly opposite arguments. They would start by recognising the pluralistic nature of the cultural heritage, and the pluralistic values which the schools must increasingly re-elect. They would see the common core curriculum and the common cultural heritage as a chimera serving only to mislead and distract the schools from what should be their larger aims: the matching of individual educational opportunity to individual need. They would argue that the broadly historical basis of many educational traditions must be undermined by what Professor J.H. Plumb has called "the death of the past" - the de-mythologising of national history, the liberation of historiography from its more obvious dependence on cultural tradition; the end of history's role as the handmaid of national self-consciousness and cultural imperialism.

On this hypothesis, too, the likely introduction of the social sciences into the secondary school curriculum will have the same effect of undermining the idea of the single, unifying, cultural concept, and substituting for it a battery of competing curricular themes, all influenced by the pluralism reigning in society beyond the classroom. Discovery methods, learning through experience, integrated studies - all these fashionable ingredients of progressive education pre-suppose a combination of individual goals and objectives - some of them, it may be, in conflict with each other - matching the multiple goals of education in general.

All these conflicting views were latent in the discussion, but usually were only indirectly expressed. This is important in connection with the recommendations of Group 3 (see page 54) where two alternative curricular designs are presented. It must also influence any consideration of the merits of a comprehensive system compared with those of a polyvalent scheme of organisation. According to what philosophical, cultural - and it should be added, sociological - premises you intend to build your reformed secondary system on will depend whether you envisage the unified school as a single community sharing a common curriculum (with an increasing number of elective subjects and options as the pupil progresses through the school) or as an institution or group of institutions combining a series of largely separate courses corresponding more or less with the present divisions.

Paradoxically, it will be those who have the clearest idea of the lineaments of the Italian high cultural tradition who are most likely to want the latter (or polyvalent) solution, while those whose conception of the common core is most vague or sceptical who will, all the same, insist most strongly on the former or comprehensive model, for compelling social reasons.

This is not a controversy which can be resolved by any appeal to authority - the evidence is, by its nature, not such that educational research can relieve individual educators or individual citizens of their own responsibilities of judgement. Where good men continue to differ, progress can only be on the basis of compromise. Tacitly, this was what the workshop concluded; it is a compromise which emerges from the resolutions and group reports. The biennium would have to be an analgam between the common core and the principle of progressive differentiation. There will be endless argument about how much differentiation is acceptable, how soon, and how much the differentiation should be by the choice of optional extras or by the choice between curricular alternatives which automatically sets up critical periods of decision-making where the road forks and children begin to be sorted out according to their unequal talents.

Within the terms adopted in the resolution there could be a wide variation in form and content, possibly necessary to take account of regional as well as ideological differences. The critical questions arise, as could have been predicted, over vocational studies and the extent to which a future unified structure should include among its "sides", "tracks" or "streams" courses corresponding to those now offered in the vocational schools.

The view which prevailed at the workshop (and which is reflected in the recommendations and the small group reports) was that vocational education should follow the main secondary school course and be provided under different auspices from those responsible for schools. On this reading of the educational scene, the schools should draw from the tradition of vocational education its understanding of handicrafts and practical work, and these should become a part of general education, but should recognise that, as recommendation number 4 puts it, "secondary studies are not of themselves of a vocational nature". This assumes that secondary education to 16 should be a "precondition of vocational training" (Group I) and envisages it as taking place "outside the basic scholastic curriculum ... organised ... by authorities including representatives of local government, labour and industry".

All this, of course, implies a major change which would demand consequential adjustments on the part of industry. Much time was devoted to discussing this, and as a foreign observer, one had the feeling that only the angels were represented in the discussion which might have been modified somewhat had the powers of darkness been more in evidence. But this was perfectly understandable and does not invalidate the point which the educators were making.

A caveat, however, was entered with some force by Professor A. Prost, one of the French experts who pointed out the high motivation which vocational studies can draw upon. France like Italy has had highly developed vocational studies and on the basis of French experience he argued for the integration of vocational studies within a unified secondary system rather than the stipulation on grounds of principle that all vocational studies must be postponed till 16 plus.

This was not a view which commanded much support, though it was widely recognised that till the school leaving age was raised by law, schools would have to offer courses which were attractive enough to pupils and parents to persuade them to stay on at school voluntarily. The prospect of vocational courses with a direct utilitarian value in employment appeal to many potential school-leavers as the figures for the growth of the vocational schools show. To ignore this and exclude vocational studies without a general overhaul of vocational training would be to invite other bodies, public and private, to compete for the full-time attendance of 15 and 16 year olds at trade schools, outside the main education system.

This seemed a real enough danger, but one to be met if necessary by changes in organisation and by the payment of grants to encourage pupils from poor homes to stay on at school. Much of the discussion on this and related issues suffered from diffuseness and from a lack of background information about juvenile employment (and unemployment) and the true level of earnings foregone by youngsters staying on at school. What was quite clear was that in its present form, the vocational school is manifestly incompatible with unified secondary education and that the way in which vocational studies - in some modified form - are incorporated in the new comprehensive school will be of critical importance to its success.

One proposition which seemed to collect almost universal support at the Frascati meeting was that differentiation in the middle school would be unacceptable, given the concept of a unified biennium from 14 to 16. In particular this implied the abolition of Latin in the middle school with its powerful sociological and academic function as an academic selector holding high prestige for middle class parents. More than this, it implied that the completion of the middle school reform was in itself, a prerequisite of the reformed secondary school, with an end to the widespread repeating which now keeps many pupils in the middle school during their fifteenth year. There was some discussion about the validity of the middle school leaving certificate, and some pertinent questions were asked as to whether a middle school leaving certificate would be required at all, if all pupils were to transfer automatically to the superior secondary school. This, of course, is tied up with the leaving age, and the various reasons of a legal or administrative nature why teenagers may be required to produce a certificate for employment or for other purposes. It seemed that there were those who were less than convinced that this dependence on certificates of doubtful value was necessary, and reference was made to parliamentary attempts to strip examination certificates of their legal significance.

Clearly what can and cannot be done depends on the national attitude towards examinations. But no one can mistake the unsatisfactory nature of the present situation, or doubt that the middle school leaving certificate examination exercises a malign influence on the reform of secondary education. As one of the small groups concluded, there are other ways of monitoring the quality of the education offered by the middle schools than by the operation of a pass-fail leaving examination whose importance is enhanced by the administrative uses to which it is put.

At the heart of the discussion of the secondary school curriculum was the idea of the single school, five years successful attendance at which would qualify a boy or girl for university entrance, irrespective of which kind of course had been taken. Here again the influence of recent radical legislation was obvious, together with all the consequential uncertainty about university reform. The attempt to ensure "parity of esteem" between different "sides" of the unified secondary school by granting open entry to higher education to all who get a secondary school certificate, is both bold and ingenicus, provided that the resulting disparity of standards among candidates for university education does not discredit the whole approach.

This was one of the considerations which caused the workshop to revert from time to time to the topic of remedial education and recurrent education - the first as a means of enabling pupils to catch up lost ground in basic subjects, the second, as a gesture to those who develop late, having dropped out into employment before completion of the secondary course. It was assumed that this work of recurrent education was a job for the schools in the evening or by correspondence, not for specially created institutions for "further" education. It seemed that one obvious need was to prune the courses which late developers had to follow of all inessential elements, and to tailor courses specially for their needs, limiting the course material strictly to what is relevant and required. The advantage of making the school sensitive to the needs of those who have only discovered their educational interests after reaching mature years is obvious. But nothing should conceal the fact that the teaching methods and social atmosphere appropriate for the older age-groups in recurrent education will be totally different from those normally prevailing in the school, and that the mature student, picking up lost threads, needs to be considered in his own right, not as a superannuated schoolboy.

Much of the discussion on the links between secondary and higher education concentrated on the age of transfer, it being widely thought that there would be merit in completing the secondary course at 18 instead of 19. This sparked off the inevitable debate on over-crowded syllabuses and what to leave out. The technical difficulties were enormous - so great, in fact, that it was plain that if left for decision at a purely technical level, nothing would happen. Some interest attached to a study of ways in which there could be alternative outlets from the secondary school, some at 18, others at 19, all leading on to further studies.

For some members of the workshop these ideas were linked with an earlier school starting age - 5 instead of 6. It was forcibly argued from Sweden that the two questions were entirely separate. In Sweden, where the school starting age is seven, it is claimed that the secondary school leaving age does not need to be correspondingly delayed, and that achievements in early adolescence do not reflect differences in school starting age.

Against this, the English experience (where the starting age is five) shows that pupils' performance at 11 is directly related to the number of terms of primary education they have received. This, of course, does nothing to confirm or dispute the suggestion that an earlier starting age could be linked with an earlier age for finishing secondary education, but it may suggest that a certain agnosticism is in order. At all events, the trend towards early education seems to be generally independent of any implication at the top end of the age range and should be considered on its own merits and on the needs of young children themselves. Much depends on what kind of programme is envisaged for five year olds in school. Having taught the world much about the education of young children, this is no doubt something on which the Italians have strong views.

Simple solutions to secondary school reform can be discounted by the nature of the problem and by the formidable pressure groups in defence of doing nothing - always the least controversial of policies. One thing which the workshop showed to those who attended from outside

Italy was a remarkable measure of agreement about what needs to be done, given the political determination needed to tackle any concerted, organisational change. No mere foreign observer could assess the political implication of this consensus, nor yet appraise the political realism of the educational experts. But considering the intensely controversial issues which were under discussion, the points of agreement were far more impressive than the points of disagreement.

Under the stimulus of the OECD representation, the workshop devoted some time to the technique of innovation and the possible steps towards reform which need to be taken alongside any legislative initiation. It was again depressing to discover how little confidence the Italian experts had in the Italian teachers' capacity to play a leading part in educational reform. Many people would argue that the training and re-training of the teachers is a sine qua non of any successful programme of reform, and that the teachers themselves must be persuaded to play a leading part in it. The gulf between the teachers and the professional students of education in the universities was distressingly wide and calculated to perpetuate the lack of understanding.

This made the suggestion for local teachers' centres to spear-head in-service training of considerable interest, provided the circumstances were such that the teachers themselves could be given a genuine measure of control over the way they develop.

This again offered a reminder of a theme which ran right through the workshop. This was that while for much of the time the workshop was concerned with organisation and the structure of different types of course in one or more schools, it was also, all the time concerned also, with teaching attitudes and methods. Criticism of school structure, for example, could not be separated from criticism of the pedagogic methods and assumption which these structures incorporated.

Thus heuristic methods of science teaching demand changed attitudes on the part of teachers, no less than do the unification of the first biennium of superior secondary school; the retraining to help teachers adjust their methods to mixed ability groups and individualisation has to be regarded as part and parcel of the introduction of modern methods elsewhere in the curriculum.

It would be easy to underestimate the importance of this - the unified secondary school will provide a stiff and very probably unwelcome challenge for those now accustomed to the present different kinds of secondary school. Many will be out of sympathy with the new methods, as with the changes of organisation, and as indicated already, their lack of sympathy will be clothed in philosophical terms about the nature of culture. Add to these doubts, the technical difficulties which reorganisation will present them with - the mixed ability teaching groups, the broader syllabuses, the disciplinary problems implied by, say, a raising of the school leaving age, coupled with the demand for a less authoritarian mode of pedagogy, and more school democracy - and the importance of retraining the teachers and winning their support so that reform becomes a movement from within the schools, not imposed from outside, is abundantly obvious.

As for teacher education generally, the workshop had little difficulty in agreeing on the need for a proper method of training graduates for secondary school teaching, and putting the training of primary school teachers on a proper footing as a post-secondary course to be carried out in institutions associated with the universities. The need for these long-term changes in initial training has been recognised for some years; when action comes, it will not replace the immediate need also to retrain and refresh the existing teachers by recurrent education of one form and another.

Any programme of reform is likely to make heavy demands on the present structure of educational administration and throughout the workshop there were suggestions for more decentralisation and new forms of innovative institutions. The need for a central educational research institution has already been recognised and great hopes are being set upon this as a long term asset to Italian education. But no less important, was the need for agencies devoted to development, so that new ideas and techniques could be introduced as quickly and as effectively as possible. There was considerable interest in the Scandinavian suggestion for the creation of some national body concerned with the sponsoring of innovation, alongside the Ministry of Public Instruction, and linked to local centres of innovation throughout Italy. Some of these suggestions would only make any sense at all, given a political commitment to decentralisation no less strong than the political commitment which is needed to educational reforms. No one at the workshop was disposed to expect the present central administration to welcome an initiation of this kind. Some of the foreign members of the workshop had some misgivings about the relationships between the educational experts and the administration which seemed to be as bad as their relationship with the teachers. A minister who was determined to press ahead with the radical reform of secondary education would look for ways of strengthening the machinery of consultation which brings together school teachers, university teachers, politicians and administrators to share their expertise and get to know each other, breaking down the suspicion which now impedes the formulation of policy and its translation into action.

On one topic the workshop was, not surprisingly, remarkably uninformative. It had nothing to say about the cost of the "new approaches to superior secondary education" which it outlined. It goes without saying that to will the ends without willing the means would be to ensure that any reform programme was still born. Some of the costs would be very considerable, consider, for example, the added expense of a bigger uptake of secondary education - the wider participation in extended education which is a principal objective of all the suggested reforms. The statistics show that, already, Italian secondary education is expanding fast. If the suggested new approaches are successful, they must quicken the demand for secondary education still more. This has a price attached to it - the price of simply providing more. Other costs are attached to providing better.

Teacher training, for example, in the form advocated by the workshop, must cost more than it does not. In-service training is expensive to organise on a large-scale. More curriculum innovation means bumping up the sums now allocated to experimental work and the development of new materials. Here the sums involved may not be very large but they all add up.

One of the recommendations is for a secondary school building programme. Just how much building would be needed depends on many factors outside the detailed knowledge of the workshop. But it also depends in some measure on an aspect of secondary school reorganisation which was touched upon. This concerns the extent to which a unified school system can be achieved using the present buildings of the various separate and distinct types of school. Common sense decrees that it must be organised in existing buildings as far as is practicable - the capital value of the buildings is too great to be replaced quickly by new custom-built comprehensive schools if this can possibly be avoided.

But one important conclusion of the workshop was that "every secondary school should offer its pupils the opportunity to choose between all the courses provided" (recommendation number 3). In other words whatever else progressive differentiation comes to mean, it must not mean the existing types of schools continuing as separate entities after unification has taken place. And whether there will be four or five separate constellations of subjects for each pupil to choose from which will, to some extent, correspond to the former types of school, the suggestion is that each institution should have the whole range of options.

The Scandinavians were at pains to point out that this means a unification of curriculum but not necessarily of physical structures - courses, not schools. In Sweden each group of schools, primary as well as secondary, which forma a comprehensive unit is brought under the pedagogic direction of a rector who ensures that it operates as a single system and that, therefore, the curricular opportunities of no children prejudiced by which school building they happen to be in.

But it is plain that this implies big programmes of improvement for the less good buildings if a common standard is to be achieved throughout each school system. And it also implies that each school unit must be big enough to provide the full range of options for each child up to the minimum age at which differentiation has begun to affect the whole of the course.

In England where reorganisation within existing schools is proceeding at an uneven speed, with political and pedagogic controversy still abounding, the concept of a "school" is such that teachers and parents would not readily accept the idea that a series of disparate units, coordinated from above by a rector, constitutes the kind of community which has been traditionally regarded as a school. There is, therefore, more inclination to argue that the speed at which reorganisation can take place must depend on the existence of suitably sited buildings which can easily be adapted to a wider range of pupils, or the availability of funds for school building, the size of each unit being determined by the age-range for whom it is intended, the range of courses which must be programmed, and the particular teaching skills which must be provided.

In the Italian context, therefore, the cost will depend on what answer is given to the question of differentiation - how far this is to be equated with existing schools - and what kind of a school community is envisaged. Plainly there is a large and open-ended financial commitment which it would be a mistake in a document of this kind to overlook.

SUMMARY OF STATEMENTS RELEASED TO THE PRESS FOLLOWING THE FRASCATI WORKSHOP

by

Oddo BIASINI
Under-Secretary of Education

Under-Secretary Biasini described the urgency of the problem arising from the tension between economic and social development on the one hand and the static nature of educational structures on the other. He noted that this tension had by now reached a point "beyond which the risk is no longer that of merely increasing the time-lag or gap, but that of triggering an abrupt and violent social dislocation which would spare nothing of existing structures".

The Frascati workshop demonstrated that similar problems are being tackled in many countries and that approaches to these problems are remarkably similar. The Under-Secretary summed up in seven points the trends most clearly endorsed during the workshop, especially as they related to Italian prospects. These trends, he felt, should be included in a *lex generalis* which would be aimed at their progressive realisation.

1. First, it is recognised that there is a need to *unify* the secondary system. Unification, however, does not mean a single school equal for all. Rather it means a system based on polyvalence and complex inter-dependencies existing within a unitary framework of goals and furthermore on the identical value given to the results. To some extent such unity exists in the university which tends to achieve, through flexible, interchangeable and individualised timetables, a common educational result, an identical level of preparation, regardless of the methods or guidelines through which this education is achieved.

2. The shift from the existing multiplicity to a unified, comprehensive and polyvalent system must be achieved *gradually*. A step-by-step timetable must be worked out which takes the entire education system into account, as well as all necessary stages involved in the change. Co-ordinated enactment of strategies must give support to the political will.

3. The fundamental characteristic of the changes to be made in the secondary system is the guarantee that a *democratic procedure* will be followed at all levels. Such procedure would not only take into account the proposals of experienced professional educators but would also provide consistent answers to the demands of youth for participation and shared responsibility as

well as to the involvement of the family, trade unions, and the representatives of business and industry. The existence of democratic procedure is also reflected in the internal relationships between students and institutions and teachers and students. Democratic procedure is reflected above all in the teaching-learning process in which individual characteristics and differences are respected and possibilities are offered that satisfy the interests of each and every student. Thus the rhythms and methods of teaching itself are individualised as well.

4. Another fundamental principle is that of basic autonomies which cut off the obsessive spiral of legislation and extreme centralisation and give joint responsibility to all levels, including those of a public nature as represented by regional and local agencies and those of intermediate groups directly concerned with education. One autonomy which must be broadened concerns the essential element in education, the relationship between the teacher and the student. This means that the concept of autonomy coincides with that of didactic freedom, of research, experimentation and innovation.

5. A fundamental point of reference for the suggestions that emerged from the workshop is that of the need to promote new methods, stimuli and activities in order to prepare teachers for their new tasks and functions, for different methods of teaching, for the new levels of professional requalification (particularly in the fields of psychology and evaluation) demanded by the new secondary school. Heretofore our personnel policies have been policies of concessions, either freely offered or extorted, in a climate of disheartenment. Access to the lists of state teachers and permanent positions, security, and a career are just rewards and unquestionable rights of labour; however qualification and the ability to carry out what may be considered a most delicate social function cannot be replaced by systems of benevolent understanding or set aside merely to substitute for an overdue compensation for services rendered. They must fit into a framework of vigorous and serious policies of verification. Moreover, such matters must not be handled from above alone, which is the case with qualifying examinations and competitions for various posts that are offered; they must also be handled from below, with the participation and objective evaluation of those benefitting from the social service of education, operated by public action and supported by public expenditures.

6. Another important point is that the intervention on the secondary school cannot be confined merely to the setting up of models and organisational patterns, unitary though they may be. They must go deeper. It is the ways of actual educational interactions that confirm the value of these models, that ratify or reject them. The new didactic methods must take into account the various forms of personal participation, the techniques of self-instruction, the new communication media, the interdisciplinary nature of scholastic activity, the breaching of rigid distinctions between subject and subject, and the global nature of evaluation.

7. This new policy also presupposes determined action in the establishment of bodies that do not conflict with the fulfilment of administrative or educational functions, but which in a certain sense fulfil a function of osmosis, of promotion, of research and development. If a broadly based pedagogical research organisation must be created on the national level, it is no less necessary and urgent that regional educational innovation organisations be established capable of carrying out the double task of research in innovation and updating of teachers. The time appears to have come, therefore, even to recast in this light a number of organisations - already contested and no longer vital - which until now were called upon by law to carry out the didactic and pedagogical promotion function whose concepts have now become outdated and which must be brought into line with new needs and situations. The reform of organisations such as the Didactic Centres or the Centre for Audiovisual Aids and similar institutions must fit into the framework of a global view of the restructuring of secondary institutions.

Having defined the principles upon which there was most agreement, Under-Secretary Biasini indicated a restructuralisation of the Ministry, a sweeping decentralisation, and the establishment of new democratic agencies on various levels as instruments indispensable for putting these principles into effect. It will then be necessary to ensure that the new schools are all unitary schools and centres of both experimentation and dissemination of the new orientations. It will also be necessary to ensure use of new evaluation methodologies and didactic technologies and careful selection and training of future teachers; these, combined with more democratic procedures of running the school itself, may pave the way for the spreading of the new orientations. The updating of teachers already employed must be functionally and critically linked to other innovative trends. Finally, a national pedagogical research organisation which makes use of the collaboration of autonomous regional research centres will provide continuous and scientific feedback of the entire process.

"Whatever manner we may choose", the Under-Secretary concluded, "it is now time to undertake concrete action. It would be a fine thing if this action were to begin precisely as a result and as an attempted practical application of the discussion that came to an end here this morning".

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APPENDIX I

STATISTICAL DOCUMENTATION ON SENIOR SECONDARY SCHOOLS IN ITALY

(Provisional text without comments)

February 1970

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1946-47 to 1968-69

VOCATIONAL INSTITUTES

School Year	State schools				Non-State schools				Total			
	N°.	students		teachers	N°.	students		teachers	N°.	students		teachers
		MF	F			MF	F			MF	F	
1946-47	345	20,858	5,788	2,924	87	3,318	681	787	432	24,176	6,469	3,711
1947-48	347	17,912	4,570	2,844	84	2,771	518	772	431	20,683	5,088	3,616
1948-49	347	18,987	4,733	2,922	88	2,989	473	749	435	21,976	5,206	3,671
1949-50	346	22,520	5,649	3,554	79	2,916	545	711	425	25,436	6,194	4,265
1950-51	350	25,561	6,593	3,622	90	3,279	533	817	440	28,840	7,126	4,439
1951-52	365	34,625	9,310	4,253	78	3,447	656	731	443	38,072	9,966	4,984
1952-53	371	43,185	12,068	4,634	84	3,954	810	806	455	47,139	12,878	5,440
1953-54	370	51,106	14,274	4,999	91	4,686	1,328	922	461	55,792	15,602	5,921
1954-55	382	57,383	16,685	5,253	92	5,126	1,417	951	474	62,509	18,102	6,204
1955-56	394	62,312	18,046	5,656	95	5,662	1,630	1,037	489	67,974	19,676	6,693
1956-57	407	64,707	18,759	6,014	90	5,297	1,840	933	497	70,004	20,599	6,947
1957-58	400	69,337	20,044	5,889	97	6,321	1,989	955	497	75,658	22,033	6,844
1958-59	394	72,906	21,336	6,569	106	7,392	2,643	1,085	500	80,298	23,979	7,654
1959-60	422	76,739	22,933	7,434	115	8,191	3,879	1,202	537	84,930	26,812	8,636
1960-61	461	90,896	28,234	9,138	127	8,865	4,794	1,361	588	99,761	33,028	10,499
1961-62	526	113,356	36,208	11,498	141	10,230	5,490	1,547	667	123,586	41,698	13,045
1962-63	497	139,851	46,967	12,837	149	12,008	6,655	1,441	646	151,859	53,622	14,278
1963-64	468	170,670	62,161	13,959	158	12,518	7,050	1,393	626	183,188	69,211	15,352
1964-65	480	163,706	60,860	15,399	150	9,572	5,042	1,362	630	173,278	65,902	16,761
1965-66	469	163,138	59,563	16,127	129	6,789	3,388	997	598	169,927	62,951	17,124
1966-67	481	163,120	60,016	16,299	119	6,152	3,141	970	600	169,272	63,157	17,269
1967-68	511	183,188	69,145	17,428	102	6,482	3,312	846	613	189,670	72,457	18,274
1968-69		208,503	80,976	18,749		6,378	3,130	828		214,881	84,106	19,577

SOURCE: ISTAT

Table 1.1 (Cont'd)

TECHNICAL INSTITUTES

School year	State schools				Non-State schools				Total			
	No.	students		teachers	No.	students		teachers	No.	students		teachers
		MF	F			MF	F			MF	F	
1946-47...	305	90,798	15,692	7,056	220	19,995	3,165	2,954	525	110,793	18,857	10,010
1947-48...	320	91,837	16,677	7,601	184	19,317	2,891	2,921	504	111,154	19,568	10,522
1948-49...	323	95,085	18,050	7,910	204	21,335	3,365	3,056	527	116,420	21,415	10,966
1949-50...	323	98,030	18,992	8,742	206	20,664	3,691	3,095	529	118,694	22,683	11,837
1950-51...	328	102,348	20,003	8,989	208	21,108	3,996	3,467	536	123,456	23,999	12,456
1951-52...	330	110,712	21,776	9,701	200	22,352	4,779	3,638	530	133,064	26,555	13,339
1952-53...	350	124,280	24,394	10,244	210	24,511	5,634	3,358	560	148,791	30,028	13,602
1953-54...	353	141,764	28,224	10,799	222	28,179	6,940	3,580	575	169,943	35,164	14,379
1954-55...	347	161,649	32,812	11,744	223	31,639	7,871	3,730	570	193,288	40,683	15,474
1955-56...	361	182,686	38,117	12,634	232	35,139	8,720	4,035	593	217,825	46,837	16,669
1956-57...	362	202,670	43,585	13,782	260	38,087	9,627	4,293	622	240,757	53,212	18,075
1957-58...	362	220,431	48,080	14,250	249	41,551	10,166	4,618	611	261,982	58,246	18,868
1958-59...	388	235,763	51,919	15,952	256	43,632	10,741	4,754	644	279,395	62,600	20,706
1959-60...	439	255,847	56,384	17,859	253	43,730	10,951	4,868	692	299,577	67,335	22,727
1960-61...	467	280,688	61,850	19,932	258	45,228	10,918	5,027	725	325,916	72,768	24,959
1961-62...	503	312,010	68,892	23,597	245	47,747	11,428	5,181	748	359,757	80,320	28,778
1962-63...	574	345,103	76,112	26,519	250	50,125	11,995	4,862	824	395,228	88,107	31,381
1963-64...	592	380,073	80,431	28,389	316	51,530	11,991	5,039	908	431,603	92,422	33,428
1964-65...	618	456,263	97,787	32,328	320	54,915	12,785	5,478	938	511,178	110,572	37,806
1965-66...	669	503,737	108,761	36,090	296	58,053	13,793	6,155	965	561,790	122,554	42,245
1966-67...	660	542,666	117,949	38,511	333	61,227	13,866	6,281	993	603,893	131,815	44,792
1967-68...	705	549,468	120,196	39,851	361	59,616	13,405	6,005	1,066	609,084	133,601	45,856
1968-69...		560,642	121,634	40,840		58,358	13,138		1,723	619,000	134,772	46,848

SOURCE : ISTAT

Table 1.1 (Cont'd)

TEACHER TRAINING COLLEGES

School year	State schools				Non-State schools				Total			
	No.	students		teachers	No.	students		teachers	No.	students		teachers
		MF	F			MF	F			MF	F	
1946-47...	145	34,983	29,291	4,141	271	23,366	21,692	3,087	416	58,349	50,983	7,228
1947-48...	146	32,015	27,563	4,049	288	22,318	20,735	2,921	434	54,333	48,298	6,970
1948-49...	146	33,373	28,597	4,181	299	23,230	21,911	3,542	445	56,603	50,508	7,723
1949-50...	146	36,208	30,333	4,636	289	23,353	21,953	3,329	435	59,561	52,286	7,965
1950-51...	146	44,512	35,669	4,898	320	25,951	23,922	3,687	466	70,463	59,591	8,585
1951-52...	147	51,390	40,028	5,071	330	28,071	25,777	3,778	477	79,467	65,805	8,849
1952-53...	152	60,859	47,114	5,702	340	30,497	28,146	3,974	492	91,352	75,260	9,676
1953-54...	167	67,991	53,062	5,746	336	32,371	29,991	3,925	503	100,362	83,053	9,671
1954-55...	176	72,961	58,060	6,193	349	34,281	32,086	4,074	525	107,244	90,146	10,267
1955-56...	176	73,88	59,926	6,271	341	34,280	32,116	4,022	517	108,161	92,042	10,293
1956-57...	176	74,044	61,083	6,316	347	35,060	32,919	4,272	523	109,104	94,022	10,588
1957-58...	177	73,337	61,101	6,311	352	35,118	32,946	4,447	529	108,455	94,047	10,758
1958-59...	177	70,840	59,243	6,296	352	34,592	32,425	4,466	529	105,432	91,668	10,762
1959-60...	179	69,048	58,092	6,451	352	34,120	31,941	4,487	531	103,168	90,033	10,938
1960-61...	183	71,799	60,378	6,800	351	34,661	32,642	4,414	534	106,460	93,020	11,214
1961-62...	201	78,803	66,691	7,402	403	41,206	39,278	5,130	604	120,009	105,969	12,532
1962-63...	212	88,323	75,208	7,699	396	43,520	41,724	4,613	608	131,843	116,932	12,312
1963-64...	215	102,470	86,934	7,963	402	47,774	45,390	4,602	617	150,244	132,824	12,565
1964-65...	220	126,268	105,881	9,090	406	53,579	51,387	4,724	626	179,847	157,268	13,814
1965-66...	221	150,940	125,476	10,461	413	59,691	57,098	4,796	634	210,631	182,574	15,257
1966-67...	228	177,911	147,775	12,050	444	68,578	65,517	5,339	672	246,489	213,292	17,389
1967-68...	242	177,763	148,543	12,143	468	71,973	68,845	5,727	710	249,736	217,388	17,870
1968-69...		175,572	148,823	12,239		73,879	70,629	5,946		249,451	218,912	18,185

SOURCE : ISTAT

TABLE 1.1. (Contd.)

SENIOR SECONDARY SCHOOLS (SCIENCE)

School year	State schools				Non-State schools				Total			
	No.	students		teachers	No.	students		teachers	No.	students		teachers
		MF	F			MF	F			MF	F	
1946-47	87	34,862	7,887	2,390	118	8,476	1,043	1,242	205	43,338	8,935	3,631
1947-48	88	35,753	7,796	2,714	114	8,786	1,126	1,319	202	44,539	8,922	4,033
1948-49	88	34,499	7,417	2,781	129	9,231	1,244	1,451	217	43,730	8,661	4,242
1949-50	88	32,483	6,778	2,903	119	9,186	1,156	1,434	297	44,669	7,934	4,337
1950-51	91	30,790	6,175	2,899	119	9,269	1,164	1,453	210	40,059	7,339	4,357
1951-52	97	30,340	5,953	3,023	116	9,136	1,089	1,430	213	39,476	7,042	4,453
1952-53	102	31,707	6,067	3,038	113	9,079	1,012	1,329	215	40,736	7,079	4,367
1953-54	129	32,724	6,171	3,034	114	9,162	1,082	1,324	243	41,586	7,253	4,358
1954-55	137	35,076	6,571	3,159	115	9,425	1,161	1,391	232	44,501	7,732	4,550
1955-56	138	36,771	6,984	3,183	108	9,700	1,226	1,327	246	45,471	8,210	4,510
1956-57	139	37,773	7,207	3,243	106	9,939	1,185	1,360	245	47,712	8,392	4,603
1957-58	139	40,794	7,685	3,480	104	10,173	1,201	1,338	243	50,967	8,886	4,818
1958-59	141	43,479	8,238	3,524	102	10,219	1,191	1,331	243	53,693	9,429	4,855
1959-60	165	48,003	9,314	3,966	88	9,210	854	1,215	253	57,203	10,168	5,181
1960-61	194	52,994	10,821	4,446	82	9,128	760	1,164	270	62,122	1,581	5,610
1961-62	168	58,807	12,591	4,975	83	9,148	770	1,152	261	67,933	3,364	6,127
1962-63	177	64,366	14,767	5,092	82	9,572	733	999	269	73,933	5,500	6,191
1963-64	188	70,734	16,982	5,141	85	10,073	830	1,098	273	80,807	17,012	6,439
1964-65	187	82,710	21,100	6,041	86	10,599	924	1,025	273	93,309	22,024	7,060
1965-66	187	93,460	24,960	6,582	86	11,103	972	982	273	104,563	25,932	7,564
1966-67	192	118,901	35,230	7,945	90	12,114	1,096	1,048	282	131,045	36,326	8,993
1967-68	211	144,807	46,848	9,417	96	13,110	1,285	1,082	307	157,917	48,133	10,499
1968-69		171,208	59,119	10,858		14,001	1,599	1,133		185,209	60,718	11,991

SOURCE: ISTAT

TABLE 1.1. (Cont'd)

SENIOR SECONDARY SCHOOLS (CLASSICS)

School year	State schools				Non-State schools				Total			
	No.	students		teachers	No.	students		teachers	No.	students		teachers
		MF	F			MF	F			MF	F	
1946-47	337	105,705	45,205	7,604	475	33,016	10,036	4,796	812	138,721	55,241	12,400
1947-48	341	101,119	43,530	7,417	464	32,899	10,069	4,067	805	134,018	53,599	11,484
1948-49	344	97,564	41,569	7,657	471	34,075	10,487	4,088	815	131,639	52,056	11,745
1949-50	343	92,708	37,867	8,308	426	31,506	9,574	4,179	769	124,214	47,441	12,487
1950-51	343	87,951	34,908	8,218	423	31,960	9,504	4,446	766	119,911	44,412	12,664
1951-52	346	89,105	34,285	8,288	412	30,956	8,713	4,400	758	120,061	42,998	12,688
1952-53	346	94,257	35,269	8,407	395	30,921	8,809	4,149	741	125,178	44,078	12,556
1953-54	356	98,968	36,360	8,157	383	31,313	8,935	3,169	739	130,281	45,295	11,326
1954-55	360	106,328	38,994	8,795	375	31,672	8,969	3,083	735	138,000	47,963	11,778
1955-56	359	111,511	41,190	9,084	366	30,940	8,667	3,742	725	142,451	49,857	12,826
1956-57	361	114,297	42,870	9,245	356	30,386	8,251	3,962	717	144,683	51,121	13,207
1957-58	363	115,550	43,803	9,323	344	31,311	8,579	3,992	707	146,861	52,382	13,315
1958-59	362	114,547	44,673	9,010	334	29,733	8,280	3,899	696	144,280	52,953	12,909
1959-60	373	115,188	46,592	9,369	313	28,862	8,352	3,811	686	144,050	54,944	13,180
1960-61	370	118,207	49,408	9,440	305	29,036	8,530	3,663	675	147,243	57,938	13,103
1961-62	375	120,952	52,994	9,839	296	29,219	8,589	3,683	671	150,171	61,583	13,522
1962-63	382	124,835	56,616	9,535	287	29,378	8,979	3,121	669	154,213	65,595	12,656
1963-64	383	133,744	62,426	9,223	276	29,952	9,151	3,100	659	163,696	71,577	12,323
1964-65	380	142,530	69,051	9,574	266	30,077	9,705	3,014	646	172,607	78,756	12,588
1965-66	380	153,221	75,319	9,879	263	30,875	10,130	2,842	643	184,096	85,449	12,721
1966-67	379	159,761	80,830	10,230	260	31,304	10,287	2,882	689	191,065	91,117	13,112
1967-68	391	163,683	84,545	10,461	257	31,095	10,887	2,782	648	194,778	94,632	13,243
1968-69		167,635	88,377	10,985	468	30,955	9,910	2,796		198,590	48,287	13,731

SOURCE: ISTAT

TABLE 1.2. INCREASE IN NUMBER OF SECONDARY SCHOOL STUDENTS OVER THE PERIOD 1961-1969
(1961 = 100)

Type of School	1961	1965	1968	1969	Average annual increase 1965-69
Vocational institutes	100	173.7	190.1	215.4	+ 5.55
Technical institutes	100	156.8	186.9	189.9	+ 4.90
Teacher training colleges	100	168.9	234.6	234.3	+ 8.50
Senior secondary schools (Science)	100	150.2	254.2	298.1	+18.7
Senior secondary schools (Classics)	100	117.2	132.3	134.9	+ 3.55
Senior secondary schools (Fine Arts)	100	198.8	320.7	376.1	+17.3
TOTAL	100	152.7	189.7	198.8	+ 6.85
Absolute values	745,649	1,138,463	1,414,483	1,482,729	

SOURCE: ISTAT - CENSIS calculation

Increase in student enrolments (+) in university education:

1961 = 100 (268,181)
1968 = 186.5 (500,215)

Average annual increase 1965-69 = +8.35

(+) intramural and extramural

TABLE 1.3. PERCENTAGE DISTRIBUTION OF STUDENTS BY TYPE OF SCHOOL - 1961-1969

Type of School	1961	1965	1968	1969
Vocational institutes	13.4	15.2	13.4	14.5
Technical institutes	43.7	44.9	43.1	41.8
Teacher training colleges	14.3	15.8	17.6	16.8
Senior secondary schools (Science)	8.3	8.2	11.2	12.5
Senior secondary schools (Classics)	19.7	15.2	13.8	13.4
Senior secondary schools (Fine Arts)	0.6	0.7	0.9	1.0
TOTAL	100.0	100.0	100.0	100.0

Source: ISTAT - CENSIS calculation

TABLE 1.4. PERCENTAGE DISTRIBUTION OF FIRST-YEAR ENROLMENTS BY TYPE OF SCHOOL IN 1965 AND 1969

Type of School	Absolute values		Percentages	
	1965	1969	1965	1969
Vocational institutes	66,380	100,285	18.2	22.5
Technical institutes	162,562	171,181	44.6	38.5
Teacher training colleges	64,667	69,134	17.8	15.5
Senior secondary schools (Science)	26,806	60,230	7.4	13.5
Senior secondary schools (Classics)	43,873	44,431	12.0	10.0
TOTAL	364,288	445,261	100.0	100.0

Source: ISTAT - CENSIS calculation

TABLE 1.5. PERCENTAGE DISTRIBUTION OF TECHNICAL INSTITUTE STUDENTS BY STUDY COURSE IN 1965 AND 1969

Type of Technical Institute	1965	1969
Agriculture	2.4	2.4
Nautical studies	1.7	1.9
Tourism	0.2	0.3
Commerce	36.4	36.1
Surveying	12.8	17.4
Business management	1.5	1.8
Industry	41.5	38.1
Women's Technical Institute	3.5	2.0
TOTAL	100.0	100.0
Absolute values	511,178	619,000

Source: ISTAT - CENSIS calculation

TABLE 1.6. PERCENTAGE DISTRIBUTION OF VOCATIONAL INSTITUTE STUDENTS BY STUDY COURSE IN 1965 AND 1968

Type of Vocational Institute	1965	1968
Agriculture	11.1	12.1
Industry	42.1	42.6
Nautical studies	1.3	2.3
Commerce	38.1	32.8
Hotel industry	2.4	4.0
Women's Vocational Institute	5.0	6.2
TOTAL	100.0	100.0
Absolute values	173,278	189,670

Source: ISTAT - CENSIS calculation

TABLE 1.7. GRADUATES BY TYPE OF SENIOR SECONDARY SCHOOL FROM 1959-60 to 1966-67

Type of school	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67
Vocational institutes	21,771	22,433	22,602	25,491	41,403	46,805	51,710	42,260
Technical institutes	44,369	47,124	49,378	49,109	52,956	63,064	73,005	86,320
Teacher training colleges	23,044	25,516	25,062	24,966	28,623	33,029	37,123	42,555
Senior secondary schools (Science)	7,994	8,274	8,514	8,953	10,038	12,177	13,727	14,701
Senior secondary schools (Classics)	24,023	23,684	23,913	22,134	24,106	27,187	28,583	29,721
Senior secondary schools (Fine Arts)	735	824	866	1,052	1,260	1,531	1,911	2,076
TOTAL	121,936	127,855	130,335	131,705	158,386	183,793	206,059	217,633

Source: ISTAT

TABLE 2.1. ATTENDANCE RATES IN 1960 AND 1967 BY SEX

Age	Males		Females	
	1960	1967	1960	1967
10	95.7	99.0	94.0	97.7
11	87.4	94.5	76.2	88.1
12	74.3	90.2	56.9	78.4
13	61.6	80.9	44.1	66.6
14	39.8	61.6	26.2	48.2
15	31.5	49.0	20.4	37.1
16	25.4	39.0	16.0	28.0
17	20.6	31.6	12.3	21.0
18	16.6	25.4	9.3	15.6

Source: ISTAT

TABLE 2.2 ATTENDANCE RATES BY OCCUPATIONAL STATUS OF HEAD OF HOUSEHOLD AND AGE OF STUDENT (1967)

Occupational status of head of household	Age groups			
	11-13	14-18	19-23	24-26
Entrepreneurs, professional, managerial and clerical workers	99.0	87.2	47.5	17.4
Self-employed workers, assistants	91.2	44.8	13.7	4.1
Dependant workers	90.4	41.5	14.5	0.1
No occupational activity	88.8	36.8	12.1	5.8
TOTAL	91.6	47.2	14.7	4.8

Source: ISTAT

TABLE 2.3. ATTENDANCE RATES BY EDUCATIONAL LEVEL OF HEAD OF HOUSEHOLD AND AGE OF STUDENT (1967)

	Age group				
Educational level of head of household	11-13	14-18	19-23	24-26	Total
University degree	100.0	97.6	80.0	32.6	82.0
2nd level diploma	100.0	91.4	52.3	15.8	62.5
Lower secondary leaving certificate	99.1	82.3	32.1	7.9	54.0
Primary leaving certificate	93.5	47.4	12.1	3.4	38.9
Literates with no certificates	84.7	29.6	5.4	1.4	26.0
Illiterates	72.3	18.9	3.6	1.1	20.6
TOTAL	91.6	47.2	14.7	4.8	37.8

Source: CENSIS estimates

TABLE 2.4. PERCENTAGE OF GRADUATES LEAVING SCHOOL OR CONTINUING TO HIGHER LEVELS (1964-1968)

Level of education	1964	1965	1966	1967	1968
Primary school					
Total graduates	87.1	88.2	88.9	91.3	93.0
of which: continuing to 1st cycle secondary	74.4	76.6	78.1	81.0	83.3
school leavers	12.7	11.6	10.8	10.3	9.7
Lower secondary school					
Total graduates	50.9	55.9	60.9	59.0	60.7
of which: continuing to senior secondary	40.8	43.8	49.4	49.4	51.5
school leavers	10.1	12.1	11.5	9.6	9.2
Senior secondary school (a)					
Total graduates	15.8	16.6	16.8	19.1	22.0
of which: continuing to senior secondary	12.1	13.3	13.0	14.0	16.5
school leavers	3.7	3.3	3.8	5.1	5.5
University					
Total graduates	3.2	3.5	3.9	4.3	-

(a) excluding vocational education

Source: CENSIS calculation

TABLE 3.1. REGULARITY OF ATTENDANCE IN SENIOR SECONDARY SCHOOLS BY TYPE OF SCHOOL IN 1960 AND 1967

Position of Students	Type of School				Total
	Technical and vocational institutes (a)	Technical institutes	Teacher training colleges	Senior secondary schools (classics + science)	
			1960		
Normal	30.5 (b)	33.5 (c)	42.2	66.9	44.2
1 year retarded	26.3 (b)	27.8 (c)	25.2	20.3	25.0
2 or more years retarded	43.2 (b)	38.7 (c)	32.6	12.8	30.8
	100.0	100.0	100.0	100.0	100.0
			1967		
Normal	34.3	37.7	48.0	73.3	47.3
1 year retarded	29.1	28.9	27.3	18.3	26.1
2 or more years retarded	36.6	33.4	24.7	8.4	26.6
	100.0	100.0	100.0	100.0	100.0

Source: ISTAT-CENSIS calculation

(a) The preparatory course of vocational institutes is considered together with the 3rd year lower secondary.

(b) including schools of art.

(c) including senior secondary schools (fine arts).

TABLE 3.2. RETARDATION OF VOCATIONAL INSTITUTE 2ND-YEAR STUDENTS IN 1967

Position of Students	1967	
	Males	Females
Normal (or in advance)	28.2	43.0
1 year retarded	30.1	29.9
2 or more years retarded	41.7	27.1
TOTAL	100.0	100.0

Source: ISTAT

TABLE 3.3

RATES OF SUCCESS IN SENIOR SECONDARY SCHOOLS

Type of School	1st year enrolments		Graduates		Graduates as percentage of 1st-year enrolments
	year	students	year	students	
Vocational institutes (3 years)	1957-58	38,989	1959-60	21,771	55.8
	1962-63	76,987	1964-65	46,805	60.8
	1964-65	66,380	1966-67	42,260	63.7
Teacher training colleges (4 years)	1956-57	28,827	1959-60	23,044	79.9
	1961-62	39,136	1964-65	33,029	84.4
	1963-64	49,938	1966-67	42,555	85.2
Technical institutes (5 years)	1955-56	61,269	1959-60	44,369	72.4
	1960-61	89,563	1964-65	63,064	70.4
	1962-63	118,780	1966-67	86,320	72.7
Senior secondary schools (Science) (5 years)	1955-56	11,667	1959-60	7,994	68.5
	1960-61	17,434	1964-65	12,177	69.8
	1962-63	20,239	1966-67	14,701	72.6
Senior secondary schools (Classics) (5 years)	1955-56	35,253	1959-60	24,023	68.1
	1960-61	37,836	1964-65	27,187	71.9
	1962-63	38,942	1966-67	29,721	76.3

Source: ISTAT - CENSIS calculation

TABLE 4.1. GRADUATES BY SOCIAL STATUS OF FATHER (1967)

Type of graduate	Status of Father				Total
	Professional	Managerial and clerical	Self-employed	Dependent	
Technical institutes, of which:	6.4	29.7	30.0	33.9	100.0
industrial	3.4	25.2	29.4	42.0	100.0
commercial	7.8	33.9	29.8	28.5	100.0
Teacher training colleges	6.2	33.6	34.6	25.6	100.0
Senior secondary schools (classics)	19.6	48.3	21.5	10.6	100.0
Senior secondary schools (science)	15.6	50.3	23.3	10.8	100.0

Source: ISTAT-CENSIS calculation

TABLE 4.2. SENIOR SECONDARY SCHOOL STUDENTS BY SOCIAL STATUS OF FATHER

Occupational status of father	Technical and vocational institutes	Teacher training colleges	Senior secondary schools
Entrepreneurs	1.1	0.7	3.0
Professional workers	0.6	1.1	6.1
Managerial workers	1.1	1.8	8.5
Clerical workers	16.0	20.3	31.8
Self-employed workers	26.1	28.5	22.4
Dependent workers	42.5	34.5	17.3
Assistants	0.4	0.7	0.3
No occupational status	12.2	12.4	10.6
	100.0	100.0	100.0

Source: ISTAT-CENSIS calculation.

TABLE 5.1. RELATIONSHIP BETWEEN SECONDARY SCHOOL GRADUATES AND UNIVERSITY ENTRANTS IN THE FOLLOWING YEAR

Type of education	Graduates in 1966-67	1st-year enrolments in 1967-68	Transition coefficient (1)
Technical proficiency certificate:			
- industrial	29,148	15,135	51.9
- nautical	1,438	1,014	70.5
- agricultural	2,125	1,941	91.3
- commercial	30,984	18,899	70.0
- surveying	11,786	7,664	65.0
- women's	4,122	2,017	48.9
"Maturity" certificate:			
- science	14,701	16,865	114.7
- classics	29,721	35,547	119.6
- fine arts	2,076	873	42.1
Teacher training certificate	42,555	22,700	53.3
TOTAL	168,656	122,655	72.7

Source: ISTAT-CENSIS calculation

(1) Transition coefficients are overestimated since they include students enrolling for the second time in 1st-year courses owing to change of Faculty or for other reasons.

APPENDIX II

PARTICIPANTS AND OBSERVERS

A. OFFICIAL PARTICIPANTS

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APPENDIX III

WORKING DOCUMENTS

CERI/EI/I/70.01	Education for the Age Group 16-19 Years in Norway - Plans Under Consideration for Reforms in the 'Seventies	K.Fr.Pettersen (National Council for Innovation in Education, Norway)
CERI/EI/I/70.02*	New Approaches in Italian Secondary Education	S. Maclure, (Editor, Times Educational Supplement, United Kingdom)
CERI/EI/I/70.03**	Problems and Conditions of Italian Secondary Education	Prof. G. Gozzer (European Centre of Education, Frascati, Italy)
CERI/EI/I/70.04	Secondary Re-organisation in England	A. Corbett (Education Correspondent for the New Society, United Kingdom)
CERI/EI/I/70.06	The Swedish Gymnasia School from 1971	L. Cervall (National Board of Education, Sweden)

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* Reproduced pp. 9- 24 of this volume.

** Reproduced pp. 25 - 38 of this volume under the title "A Brief History of Italian Educational Reform".